



LCD Television Service Manual


Chassis: MT5380

Product Type: LHDN26W57US (1)—ELCHW261

Ver 1.0

Hisense Electric Co., Ltd.

August, 2009

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Service Manual

1. Precautions and notices

BEFORE SERVICING THE LCD TV, READ THE SAFETY PRECAUTIONS IN THIS MANUAL.

USE ONLY MANUFACTURER SPECIFIED REPLACEMENT PARTS WHEN SERVICING.

USE OF NON-AUTHORIZED PARTS WILL VOID THE MANUFACTURE'S WARRANTY

Proper service and repair is important to the safe, reliable operation of all Hisense Electric Co., Ltd Equipment. The service procedures recommended by Hisense and described in this Service Guide are effective methods of performing service operations. Some of these service operations require the use of tools specially designed for the purpose. The special tools should be used when and as recommended.

It is important to note that this manual contains various CAUTIONS and NOTICES which should be carefully read in order to minimize the risk of personal injury to service personnel. The possibility exists that improper service methods may damage the equipment and pose risk of personal injury

. It is also important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. Service should only be performed by an experienced electronics

technician trained in the proper Television safety and service methods and procedures

Hereafter throughout this manual, Hisense Electric Co., Ltd will be referred to as

Hisense.

1.1 Warning

1.1.1

Critical components having special safety characteristics are identified with a ▲ by the Ref. No. in the parts list. Use of non-manufacturer's recommended parts may create shock, fire, or other hazards. Under no circumstances should the original design be modified or altered without written permission from Hisense. Hisense assumes no liability, express or implied, arising out of any unauthorized modification of design. Servicetech assumes all liability.

DANGER CAUTION

TO ENSURE THE CONTINUED RELIABILITY OF THIS PRODUCT, USE ONLY ORIGINAL MANUFACTURER'S REPLACEMENT PARTS, WHICH ARE LISTED WITH THEIR PART NUMBERS IN THE PARTS LIST SECTION OF THIS SERVICE GUIDE.

1.1.2.

All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically. When repairing, be sure to use anti-static table mats and properly use a grounding wrist strap. Keep components and tools also at this same potential.

IMPORTANT:

Always disconnect the power cord from AC outlet before replacing parts or modules.

1.1.3

To prevent electrical shock, use only a properly grounded 3 prong outlet or extension cord.

1.1.4

When replacement parts are required, be sure to use replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards and will void the manufacturer's warranty.

1.1.5

Safety regulations require that after a repair the set must be returned in its original condition. In addition, prior to closing set, check that:

-Note:

>All wire harnesses and flex cables are properly routed and secured with factory tape and/or mounted cable clamps.

> All cables and connectors are properly insulated and do not have any bare wires/lead exposed.

1.1.6

(1) Do not supply a voltage higher than that specified to this product. This may damage the product and may cause a fire.

(2) Do not use this product:

> High humidity areas

> In an area where any water could enter or splash into the unit.

High humidity and water could damage the product and cause fire.

(3) If a foreign substance (such as water, metal, or liquid) gets inside the panel module, immediately turn off the power. Continuing to use the product may cause fire or electric shock.

(4) If the product emits smoke, and abnormal smell, or makes an abnormal sound, immediately turn off the power. Continuing to use the product, it may cause fire or electric shock.

(5) Do not pull out or insert the power cable from/to an outlet with wet hands. It may cause electric shock.

(6) Do not damage or modify the power cable. It may cause fire or electric shock.

(7) If the power cable is damaged, or if the connector is loose, do not use the product: otherwise, this can lead to fire or electric shock.

(8) If the power connector or the connector of the power cable becomes dirty or dusty, wipe it with a dry cloth. Otherwise, this can lead to fire.

(9) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer,

or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

1.2 Notes

Notes on Safe Handling of the LCD panel and during service

The work procedures shown with the Note indication are important for ensuring the safety of the product and the servicing work. Be sure to follow these instructions.

- Before starting the work, secure a sufficient working space.
- At all times other than when adjusting and checking the product, be sure to turn OFF the POWER Button and disconnect the power cable from the power source of the TV during servicing.
- To prevent electric shock and breakage of PC board, start the servicing work at least 30 seconds after the main power has been turned off. Especially when installing and removing the power board, start servicing at least 2 minutes after the main power has been turned off.
- While the main power is on, do not touch any parts or circuits other than the ones specified. If any connection other than the one specified is made between the measuring equipment and the high voltage power supply block, it can result in electric shock or may trip the main circuit breaker. When installing the LCD module in, and removing it from the packing carton, be sure to have at least two persons perform the work.
- When the surface of the panel comes into contact with the cushioning materials, be

sure to confirm that there is no foreign matter on top of the cushioning materials before the surface of the panel comes into contact with the cushioning materials. Failure to observe this precaution may result in, the surface of the panel being scratched by foreign matter.

- Be sure to handle the circuit board by holding the large parts as the heat sink or transformer. Failure to observe this precaution may result in the occurrence of an abnormality in the soldered areas.
- Do not stack the circuit boards. Failure to observe this precaution may result in problems resulting from scratches on the parts, the deformation of parts, and short-circuits due to residual electric charge.
- Perform a safety check when servicing is completed. Verify that the peripherals of the serviced points have not undergone any deterioration during servicing. Also verify that the screws, parts and cables removed for servicing purposes have all been returned to their proper locations in accordance with the original setup.



The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

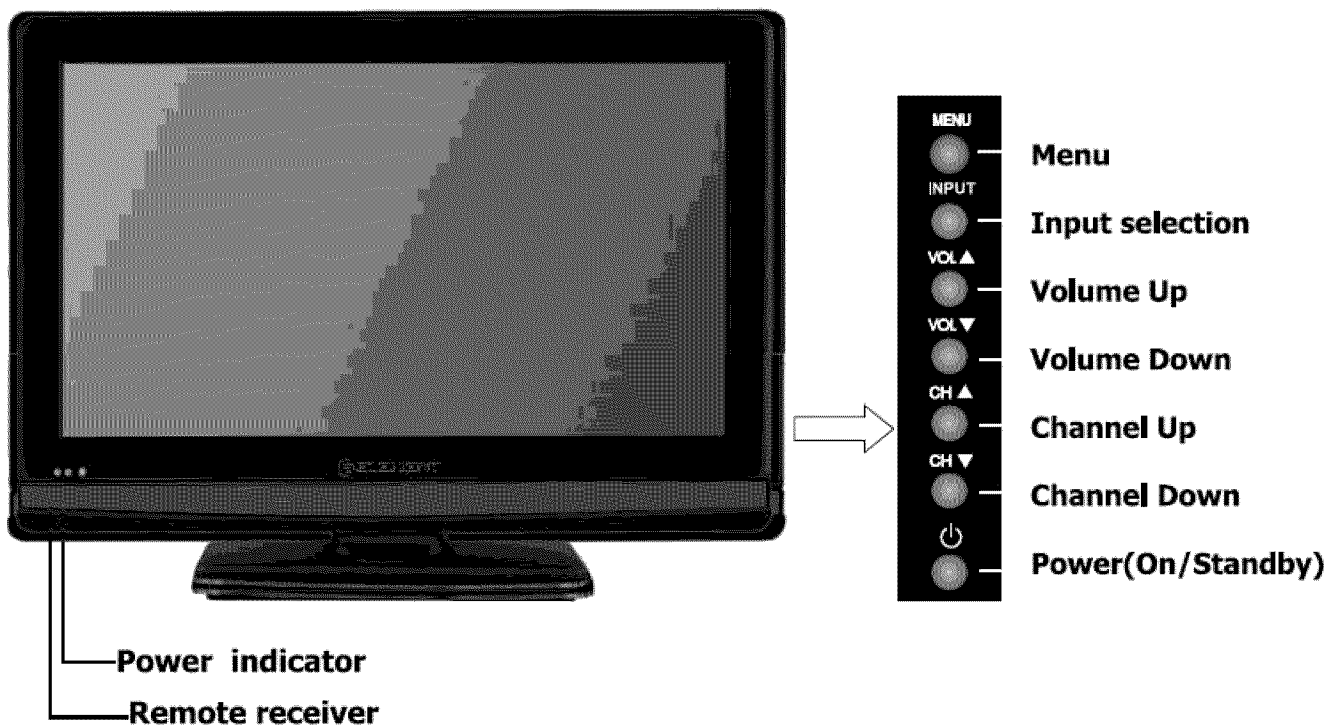


The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the set.

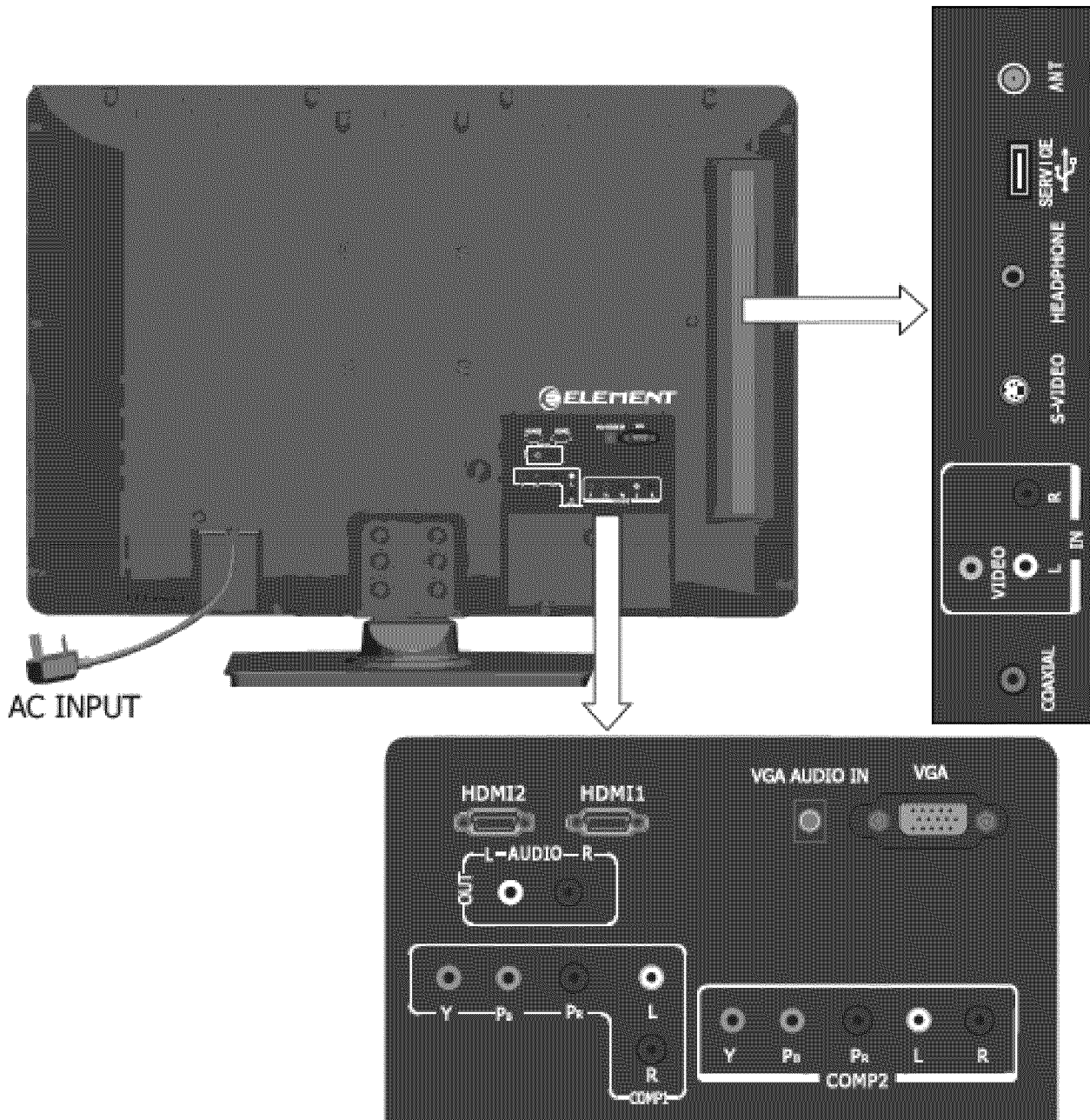
2. Product Function Specifications

2.1 Product Function

Front Cabinet



Back Cabinet



2.2 Specifications

Appendix

Specifications

Model		ELCHW261
Diagonal display size		26 Inches
Television system		American TV standard ATSC /NTSC system
Audio multiplex		BTSC system
Channel coverage		VHF: 2~13 UHF: 14~69 CATV:1~125 Digital Terrestrial Broadcast (8VSB): 2~69 Digital cable (64/256 QAM): 1~135
PC mode		640×480/60Hz,800×600/60Hz,1024×768/60Hz
YPbPr/YCbCr mode		480I/60Hz,480P/60Hz,720P/60Hz,1080I/60Hz
HDMI mode		480I/60Hz,480P/60Hz,720P/60Hz,1080I/60Hz
Resolution		1366×768
Power source		AC 120 V , 60 Hz
Power consumption		75W
Audio power		5W+5W
Connection Interface	RF input	Cable/ Antenna ×1
	Video input	VideoX1 S-VideoX1 ComponentX2 HDMI X2
	Graphic input	Analog RGB 15pin ×1
	Audio input	AV Audio X 1 Component Audio X 2 VGA Audio Input X 1
	Audio output	Audio X 1 Coaxial Audio out x 1 Headphone audio out x 1
Dimensions		Length: 26.5 inches Width: 8.2 inches Height: 20.3 inches
Weight		23.1 lbs
Environmental conditions		Temperature 5°C~35°C (41F~95F) Humidity:20%-80%RH, Atmospheric pressure:86kPa-106kPa
Supplied accessories		Remote control, AC cord, Batteries, User Manual, Warranty Card, QSG, Remote Control Guide, Warranty Registration card

Design and specifications are subject to change without notice.

CUSTOMER NOTICE: Use carefully when operating to prevent damage to the screen.

3. LCD Panel Spec

Panel: M260TWR1\ROH **SN:** 1061384

3.1 General Description

Introduction

The M260TWR1 is a color active matrix thin film transistor (TFT) liquid crystal display (LCD) that uses amorphous silicon TFT as a switching device. It is composed of a TFT LCD panel, a timing controller, voltage reference, common voltage, DC-DC converter, column driver, and row driver circuit. This TFT LCD has a 26-inch diagonally measured active display area with WXGA resolution (1366 vertical by 768 horizontal pixel array).

Features

- 26" WXGA TFT LCD Panel
- 4U CCFLs Backlight System
- Supported WXGA (V:1,366 lines, H:768 pixels) resolution
- Compatible with RoHS Standard



3.2 General Features

Product Summary

Items	Specifications	Unit
Screen Diagonal	26	inch
Active Area	575.769 (H) x 323.712 (V) `	mm
Pixels H x V	1,366 (x3) x 768	
Pixel Pitch	0.4215 (per one triad) x 0.4215	mm
Pixel Arrangement	R,G,B. Vertical Stripe	
Display Mode	Normally White	
White Luminance	450 typical	cd/m ² (CCFL@7mA)
Contrast Ratio	800 : 1 typical	
Response Time	(5) typical	msec
Input Voltage	12 typical	v
Logic Power Consumption	3.6 typical (Black pattern, 60Hz)	watt
Backlight Power Consumption	40 typical (CCFL current 7mA)	watt
Weight	3,900 typical	g
Outline Dimension	626 (W) x 373 (H) x 32 (T)*	mm
Electrical Interface (Logic)	8 bit LVDS	
Support Color	16.7 M	
Luminance Uniformity(5points)	80% typical	
Optimum Viewing Direction	6 o'clock	
Surface Treatment	Anti Glare + 3H	

*The gibbosities were not calculated in the thickness of the outline dimension.

4. Chassis Layout and Overall Wiring Diagrams

Boards and Chassis Layout

No	Description	Part No.	Type/Model	PCB/ Model
(1)	Main Board	121477	RSAG2.908.1553-2\ROH	RSAG7.820.1730\VER.D\ROH
(2)	Power Board	122630	RSAG2.908.1498-2\ROH	RSAG7.820.1646\VER.C\ROH
(3)	Keypad Board	113354	RSAG2.908.1088\ROH	RSAG7.820.1101\VER.B\ROH
(4)	IR Board	116295	RSAG2.908.1260-2\ROH	RSAG7.820.1337\VER.B\ROH

5. Factory/Service OSD Menu and Adjustment

5.1 To enter the Factory OSD Menu

- a. With factory RC (remote control)
 1. Press “M” button and enter factory mode.
 2. Press “Menu” button and enter factory OSD menu.
 3. Press “CH+”/“CH-” button select the function menu, press “VOL+”/“VOL-” enter the selected function menu. Press “VOL+”/“VOL-” button adjust values in the menu.
- b. With user’s RC
 1. Power TV On
 2. Press Menu button and call up User OSD Menu
 3. Select Audio-> Balance
 4. Enter 0->5->3 ->2 in sequence.
Note: If necessary, re-do number keys.
 5. Factory OSD appears.
 6. Press Menu again and leave factory OSD.

5.2 Factory OSD Menu

5.2.1 White Balance

Note: Different source has different WB values. Before adjusting, please change to desired source.

1. Auto Color

For VGA and Component Video sources, WB values must be adjusted.

Before adjusting, prepare the signal instruments such as DVD or K-8256 first, and find the video picture with gray and color bars. Then please change to desired source.

	source	Timing	Pattern	Notes
1	ADC VGA	1024*768	gray-3color	For VGA source
2	ADC HDTV	720P	gray-3color	For Component Video

Notes:

- a、Press “M” button and enter factory mode.
- b、Press “Menu” button and enter factory OSD menu.
- c、Select the item “Auto Color”.
- d、Press VOL+ button to auto color.
- e、Close the OSD menu after 5 seconds.

5.2.2 Factory Option

	Item	Default	Options	Notes
1	MODE	M	M, U	M-Can enter factory mode with factory RC or user RC. U-Can enter factory mode only with user's RC.

Note: MODE “M” is only used for factory production.

5.2.3 Version Info

	Item	Default	Options	Note
1	Version			Software version
2	Date			The date of current version

Note: Software version info of the TV, readable only.

5.2.4 Clear the EEPROM

Item	Meaning	Note
Clean Protected	Clear partly	Clean data except WB data and Auto Color data
Clean All	Clear completely	Clean all data

Note: The factory menu date varies according to different sources. In case changing the factory data by error, you can choose to “Clean Protected”, by which you can resume the default value.
To clear the EEPROM:

- Select the item “Clean All”.
- Press VOL+ button to clear the EEPROM data.
- Close the OSD menu after 5 seconds.
- Restart the TV.

5.3 Designer Menu

5.3.1 Video Mode

Standard:

	TV	AV	S-Video	Component	VGA	HDMI
R Gain	119	119	119	141	127	120
G Gain	125	125	125	145	120	122
B Gain	130	130	130	145	130	132

Offset:

	TV	AV	S-Video	Component	VGA	HDMI
R Offset	116	116	116	121	124	120
G Offset	124	124	124	125	126	128
B Offset	124	124	124	125	127	128

Cool:

	TV	AV	S-Video	Component	VGA	HDMI
R Gain	119	119	119	141	127	120
G Gain	125	125	125	145	120	122
B Gain	145	145	145	160	145	147

Warm:

	TV	AV	S-Video	Component	VGA	HDMI
R Gain	134	134	134	156	142	135
G Gain	125	125	125	145	120	122
B Gain	130	130	130	145	130	132

5.3.2 Video Curve:

	TV	AV	S-Video	Component	VGA	HDMI
Bright Max	600	650	650	700	700	650
Bright Min	0	0	0	0	0	0
Bright Mid	520	550	550	550	590	530
Contrast Max	650	600	600	550	600	600
Contrast Min	0	0	0	0	0	0
Contrast Mid	500	480	480	460	440	470
Saturation Max	800	800	800	800	800	800
Saturation Min	0	0	0	0	0	0
Saturation Mid	570	550	550	500	630	500
Hue Max	1000	1000	1000	1000	1000	1000
Hue Min	0	0	0	0	0	0
Hue Mid	471	471	471	471	471	471

5.3.3 Picture Mode

	TV	AV	S-Video	Component	VGA	HDMI
Vivid Bright	55	55	55	55	55	55
Vivid Contrast	55	55	55	55	55	55
Vivid Saturation	55	55	55	55	55	55
Std Bright	50	50	50	50	50	50
Std Contrast	50	50	50	50	50	50
Std Saturation	50	50	50	50	50	50
Movie Bright	45	45	45	45	45	45
Movie Contrast	45	45	45	45	45	45
Movie Saturation	45	45	45	45	45	45

5.3.4 Volume Curve :

	Min	20	Mid	80	Max
TV	0	24	34	49	80
AV/ S-Video	0	23	30	47	67
component	0	23	30	47	67
HDMI	0	19	24	35	52
VGA	0	23	30	47	67

Note: Set Downmix to “Lt/Rt”.

5.4 To Exit the Aging Mode

If There is a red “M” moving on the screen, it means the TV is in Aging mode. To exit the Aging mode, use your user RC, and enter 8->0->8 ->7 in sequence.

Note:

The above “Factory/Service OSD Menu” are reference only, please refer to the actual units to determine the appearances.

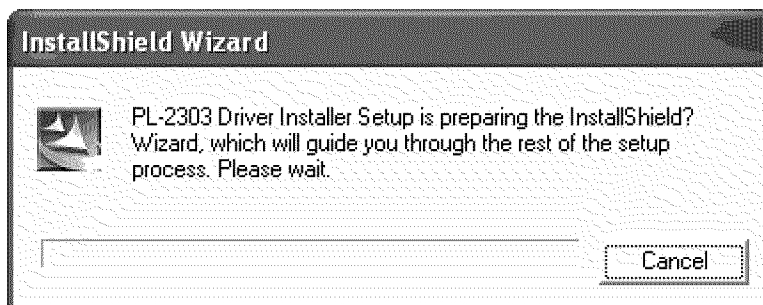
6. Software Upgrading

The software is upgraded by a burning tool-MtkTool, which can burn the program file *.bin to the main board of the unit.

6.1 Get ready for upgrading

6.1.1 Install the driver

Double click the icon  , install the driver.



Select the default value, the driver will be installed step by step.

6.1.2 Hardware connecting

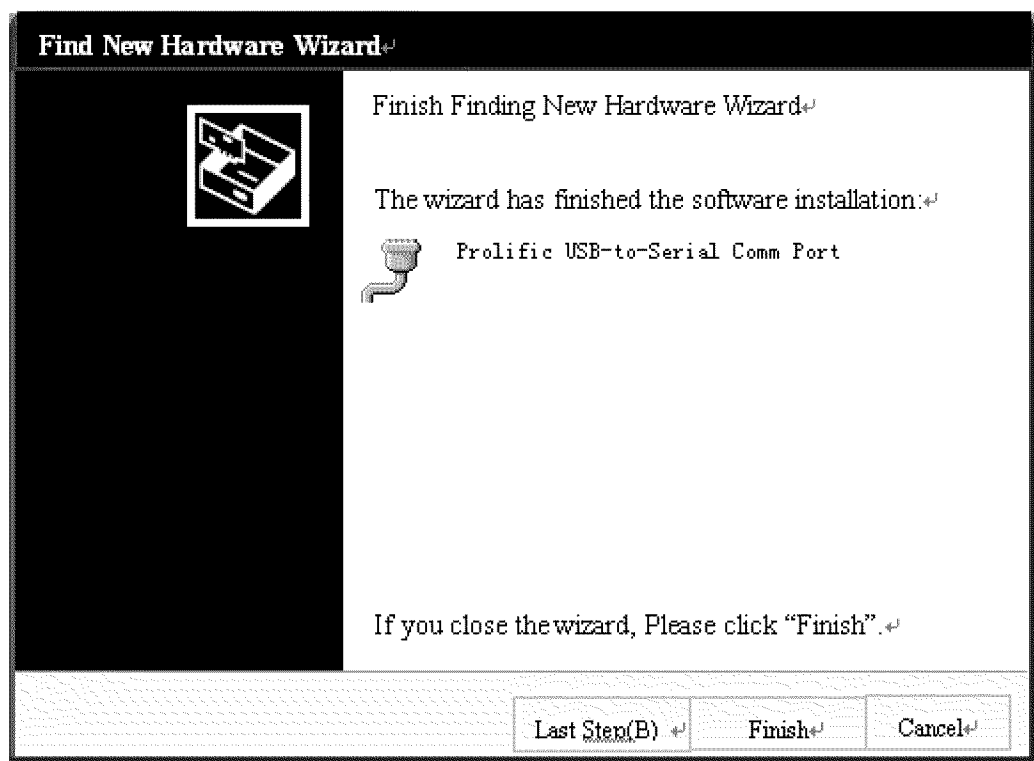
Connect the unit to your pc with a USB-to-serial port cable. USB port connects to your pc, and serial port to the TV's RS232 port.



USB connector: to PC.

Serial connector: to TV's RS232 port.

For the first connecting, the pc will recognize and automatically install the USB device. The process is just like the installation of a mini disk, see the following picture.



6.2 Upgrading with the MtkTool

Mtktool is a green program needing no installation. It is saved in the folder



MTKTOOL_20061027

. There are five folders/files in this folder altogether.



MtkLog



flashinf.ini
配置设置
17 KB



MtkTool.exe



MtkTool.ini
配置设置
1 KB




Shortcut to
MtkTool.exe
快捷方式

The MtkTool using log is restored in the MtkLog folder. It records the running time and date whenever the tool is used. The log will be a txt file named by the date and time.



MtkTool.exe

After connecting the TV with your PC, double click  icon, open the MtkTool.

If following error appears, it means the related port is not be set properly.



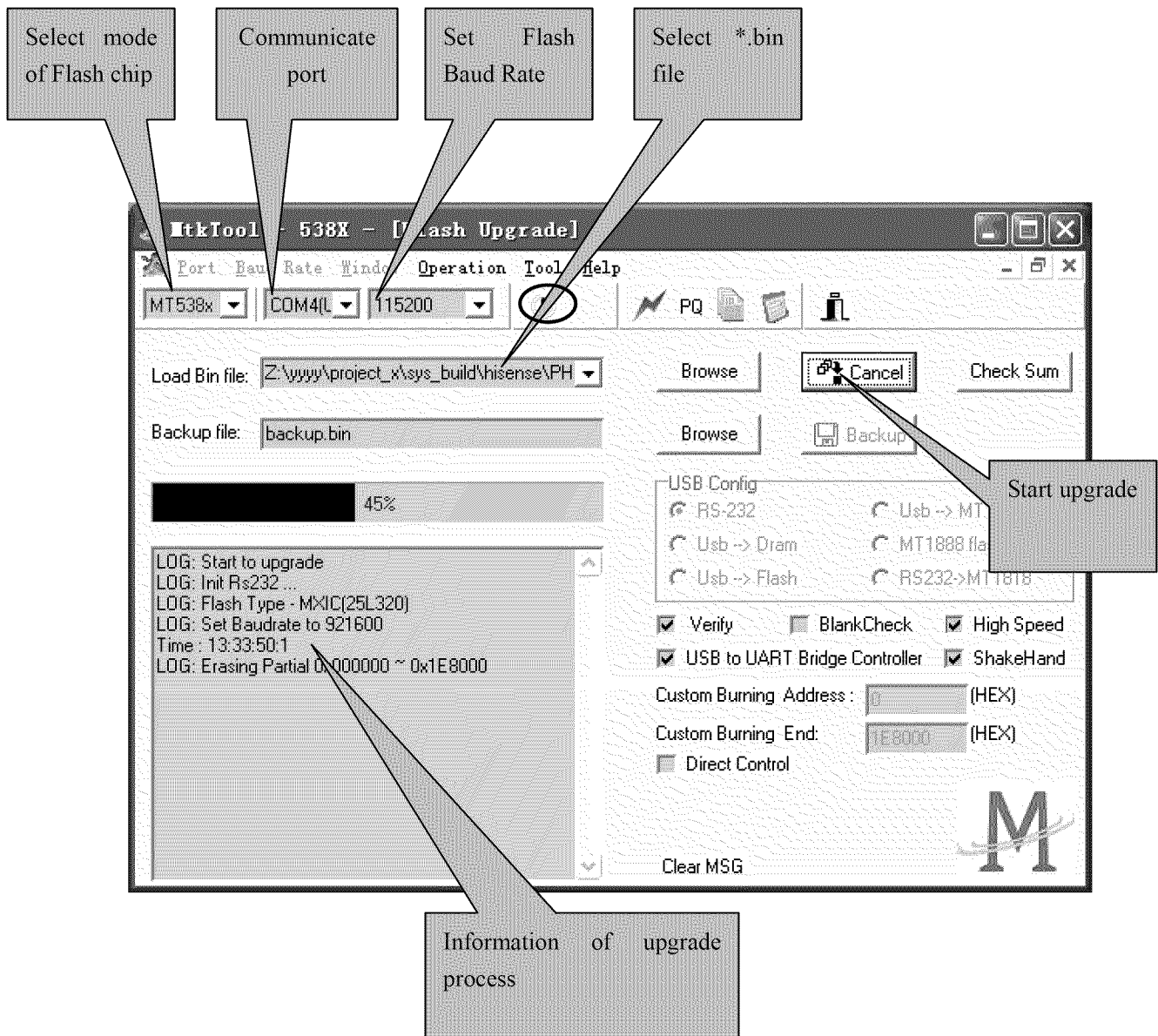
Ignore these errors, click “Confirm” and enter the MtkTool main interface, see the following picture.

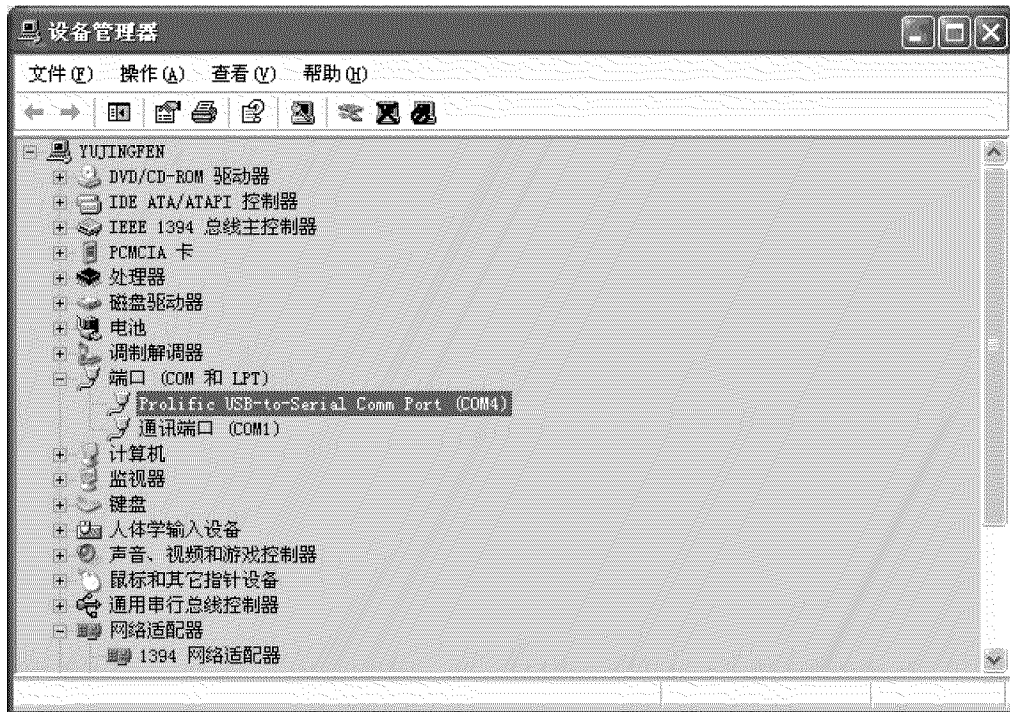
Flash chip model

Please refer to follow steps to update the software:

- 1—Select mode of Flash chip to MT538X as the below picture.
- 2—Refer to the next page instruction to select the communicate port.
- 3—Press the icon beside the baud rate and make sure it is green as the below picture.
- 4—Set the flash baud rate to 115200 as the below picture.

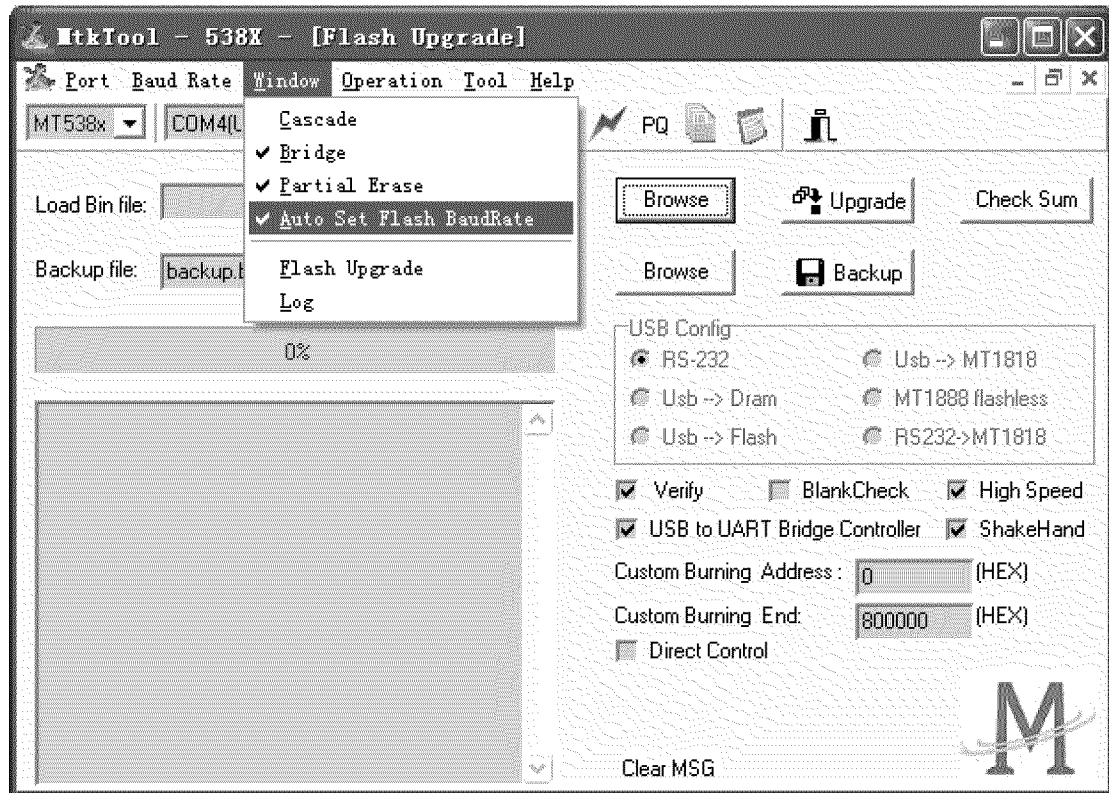
- 5—Click the browse button to select the *.bin file that will be updated.
- 6—Click the “start” button to update software.





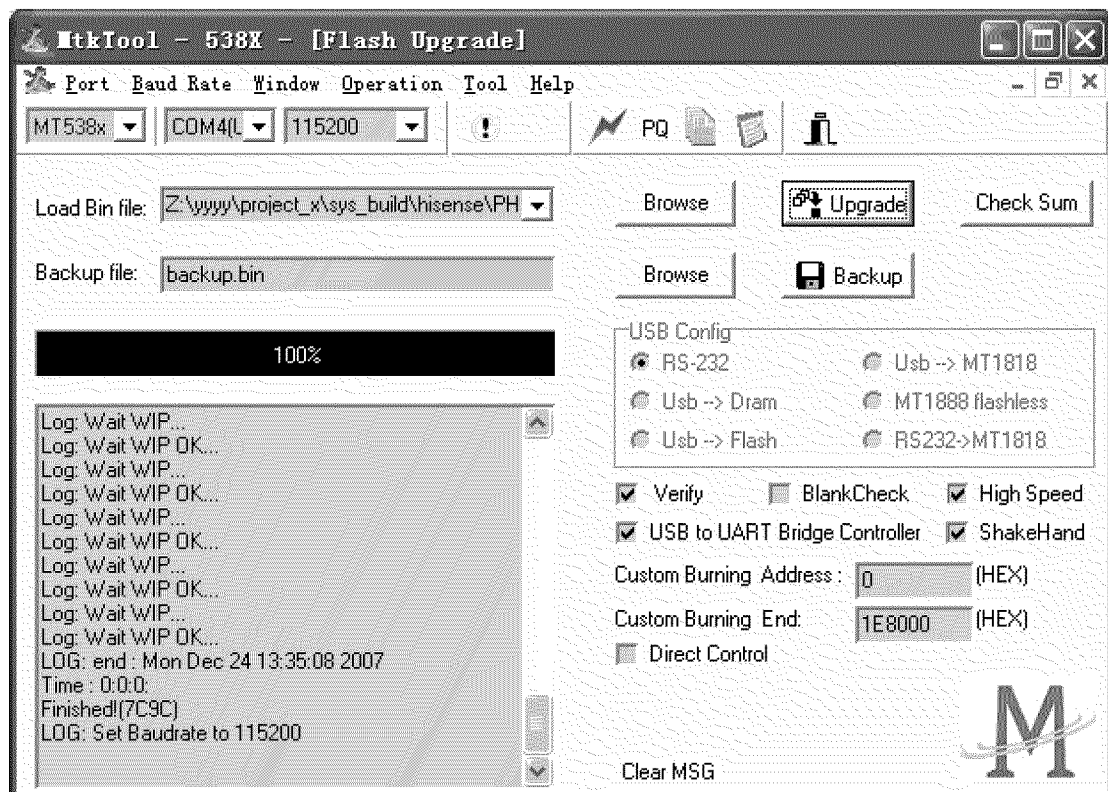
Open “Device Manager” and find which port is connected with the TV. In above picture, COM4 is connected to the TV; so, select “COM4” in the MtkTool main interface. Select the right baud rate according to chip model. For this unit(chip model is MT538X), select 115200.

Note: Where or not click the “Auto Set Flash Baud Rate” in the “window” menu depends on the chip type. If the flash chip does not support high speed transport, do not select this option; otherwise, reserve the selected mood.



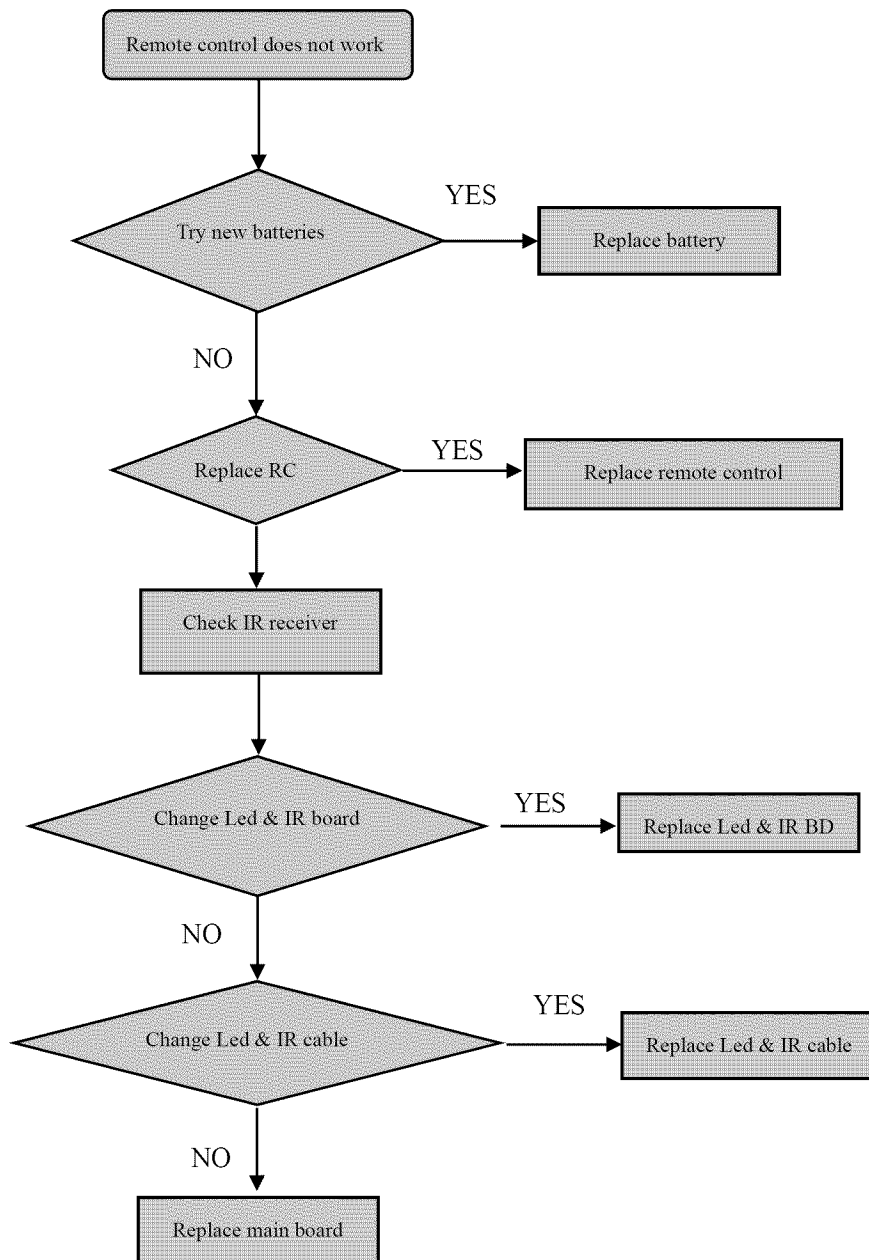
Click “Browse” button, find the upgrading program file, and select it. Press “Upgrade” button and start upgrading.

The following interface appears on the screen, indicating upgrading successfully.

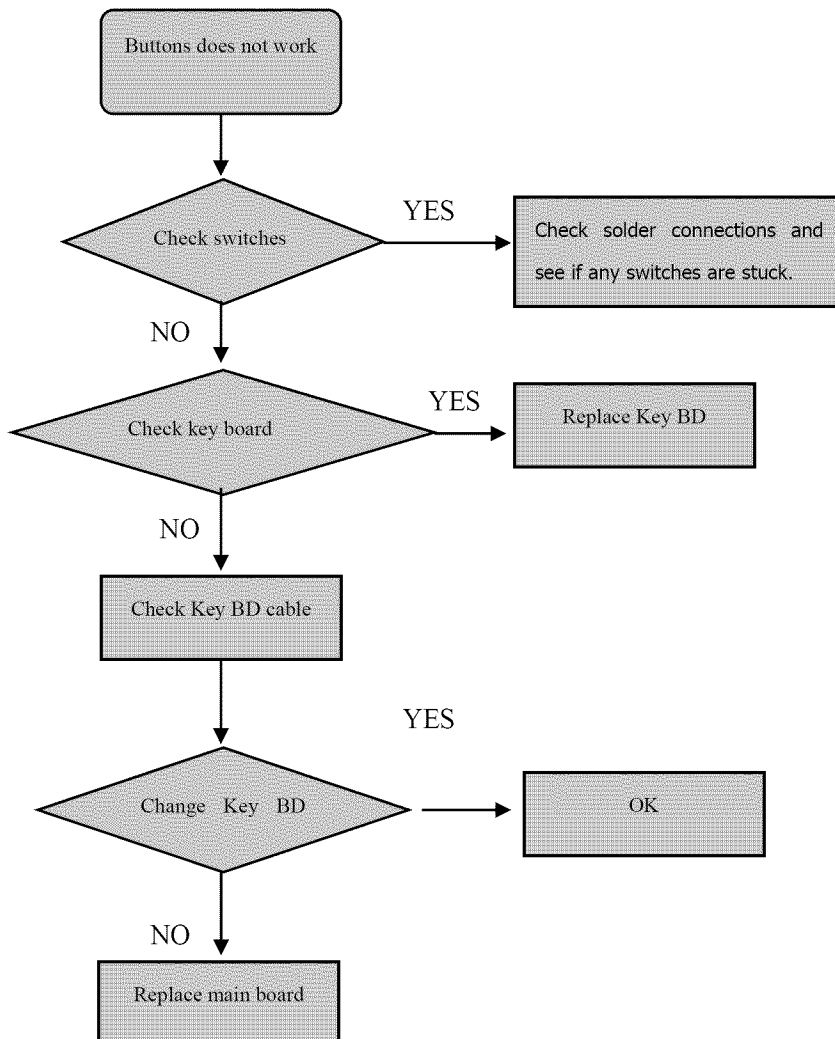


7. Troubleshooting

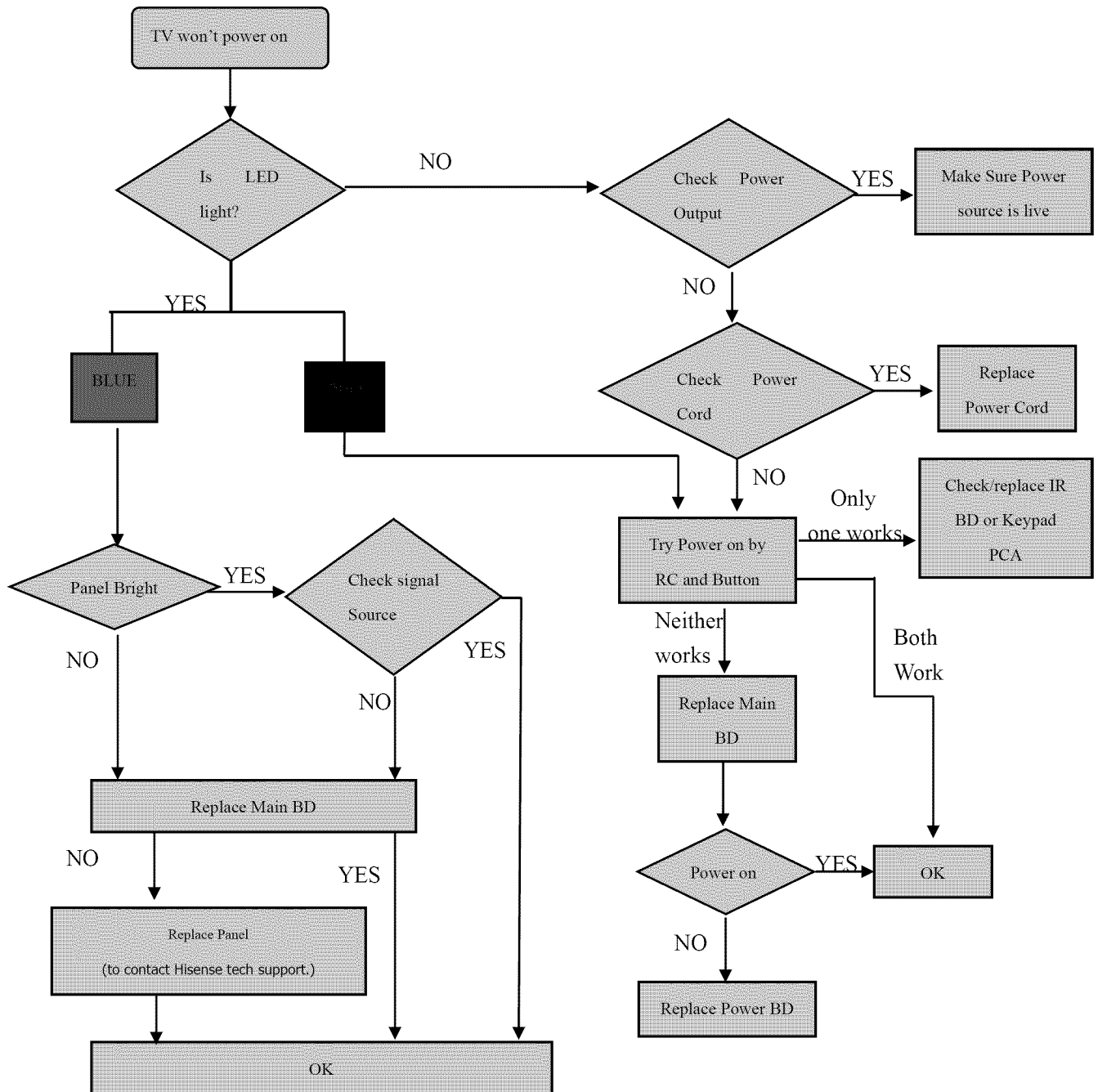
7.1 Troubleshooting for Remote Control



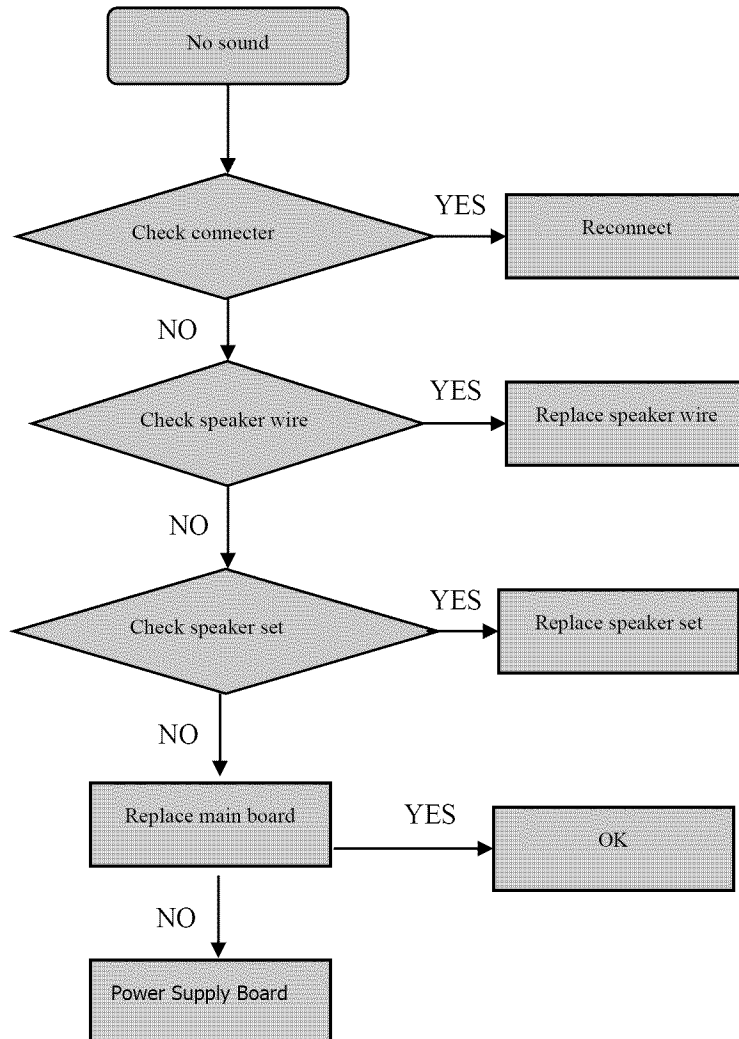
7.2 Troubleshooting for Function Key



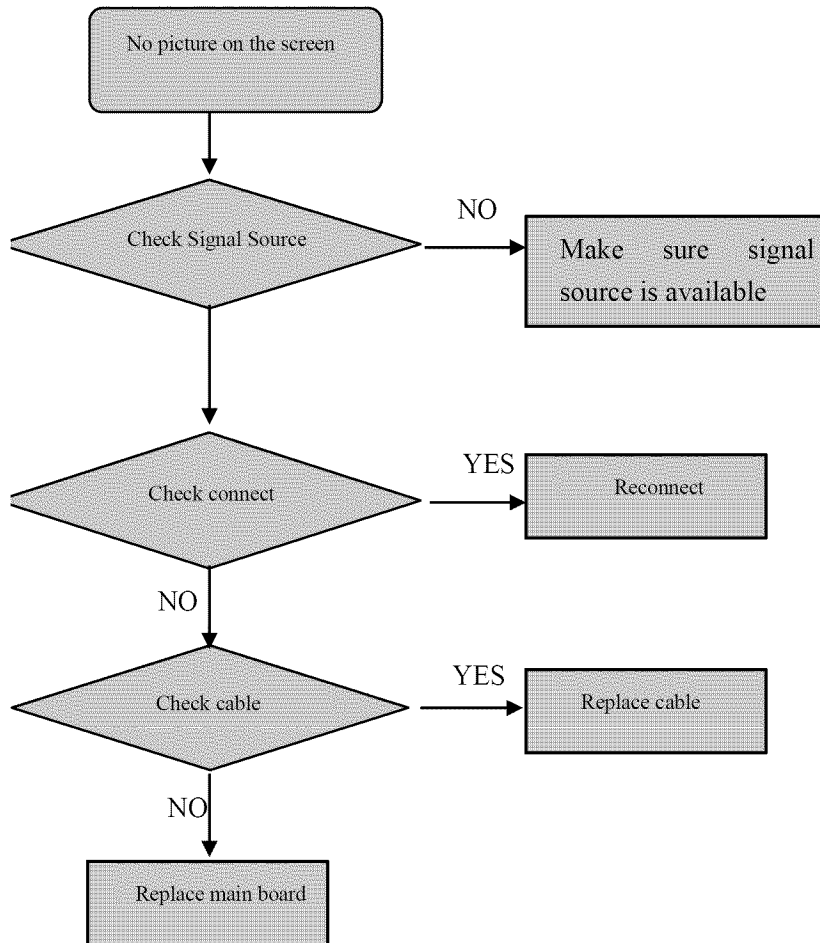
7.3 TV won't Power On



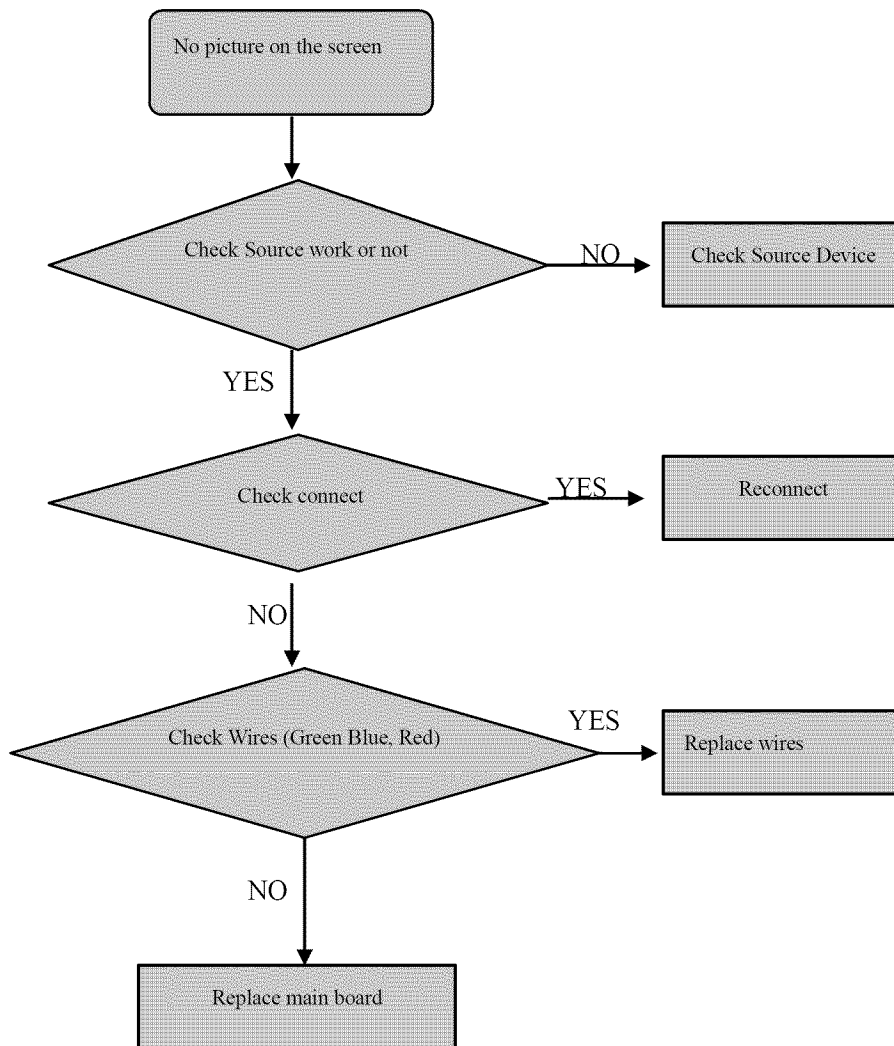
7.4 Troubleshooting for Audio



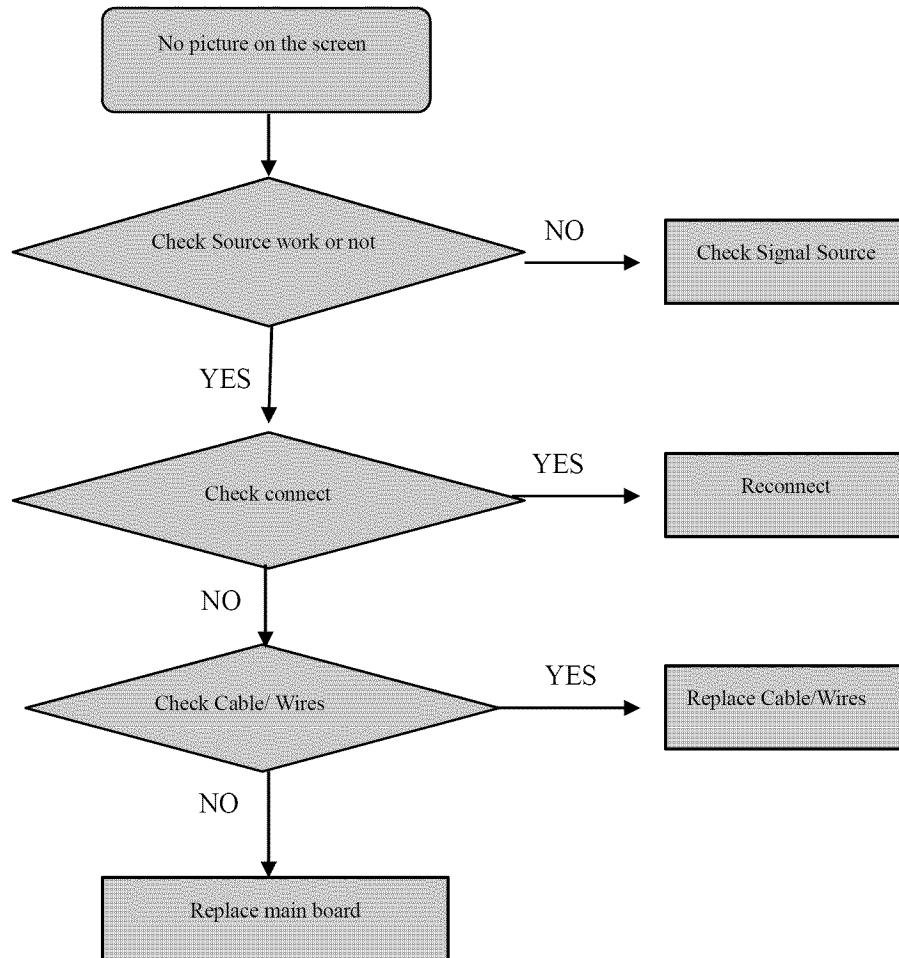
7.5 Troubleshooting for TV/VGA/HDMI input



7.6 Troubleshooting for YPbPr input

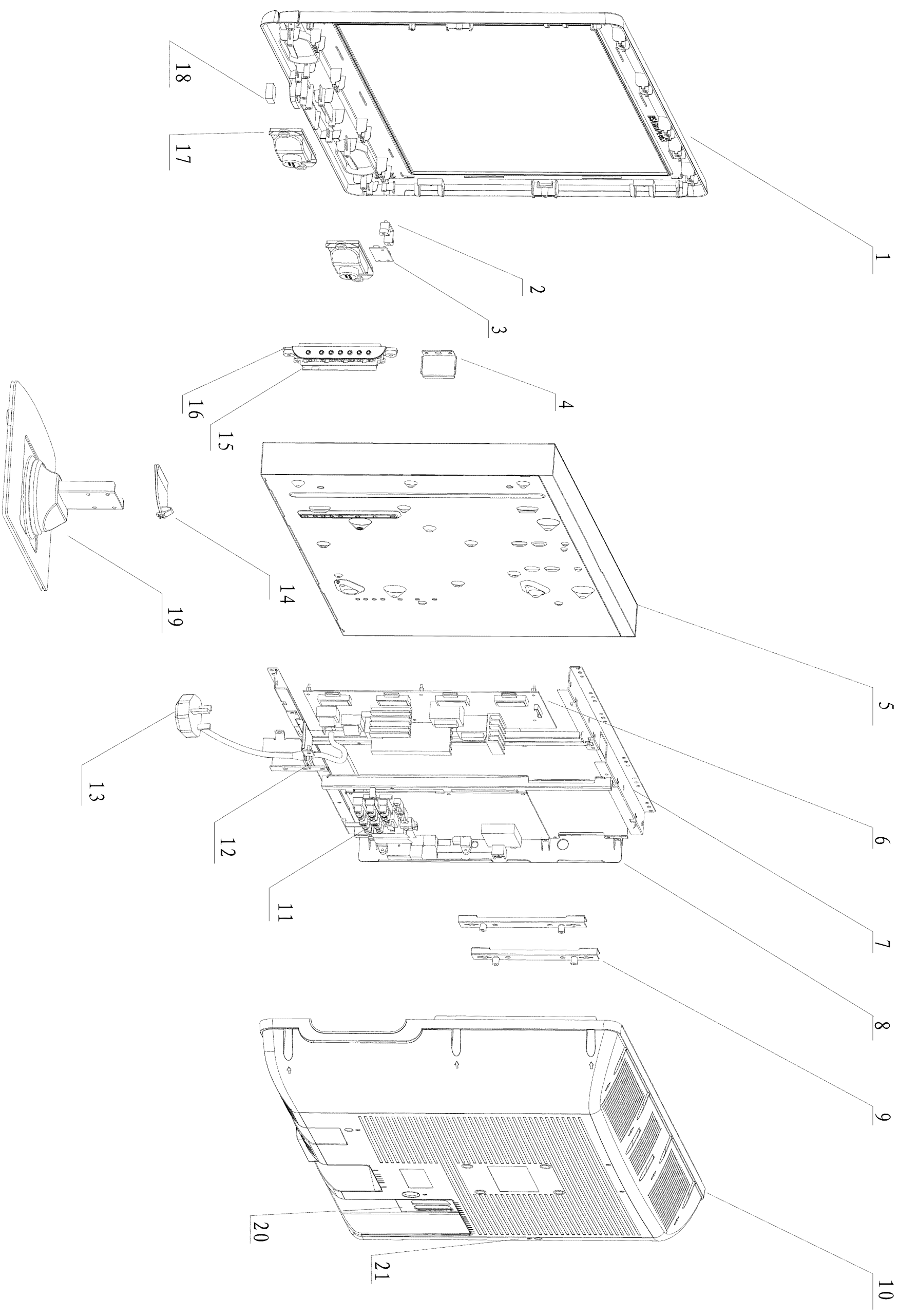


7.7 Troubleshooting for Video/S-Video input



8. Explode View and Explode Bom List

9. Schematic circuit diagram



ELEMENT ELCHW261 PARTS LIST

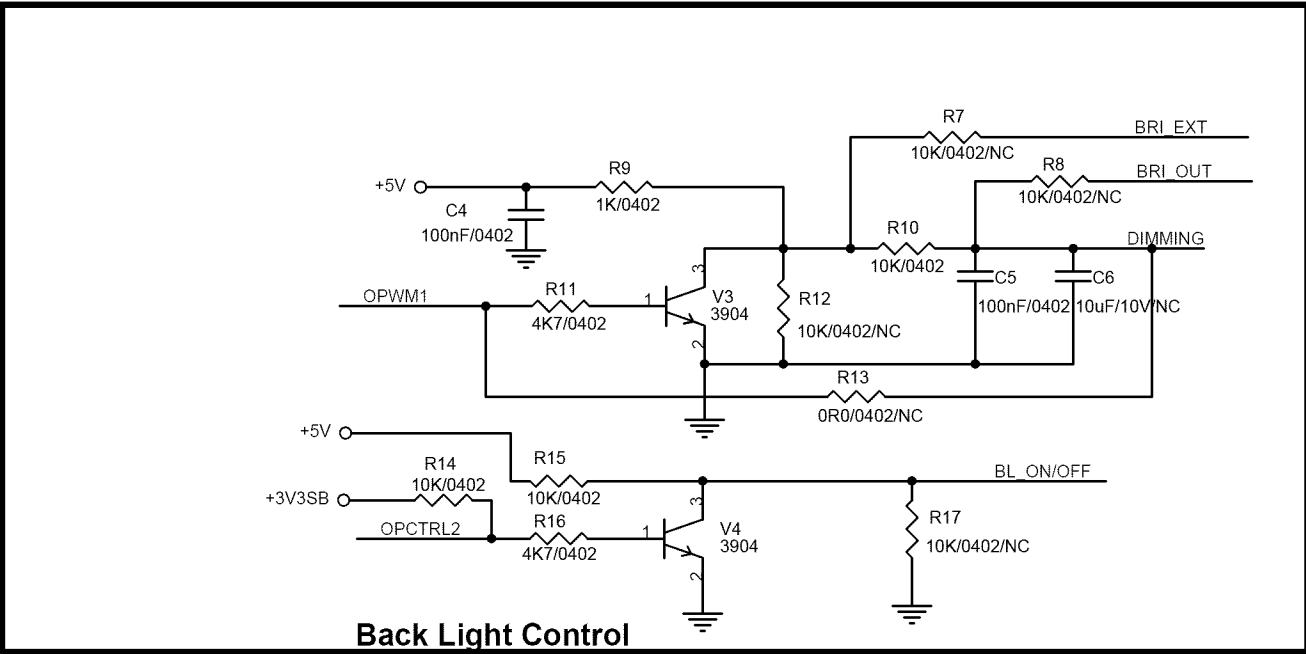
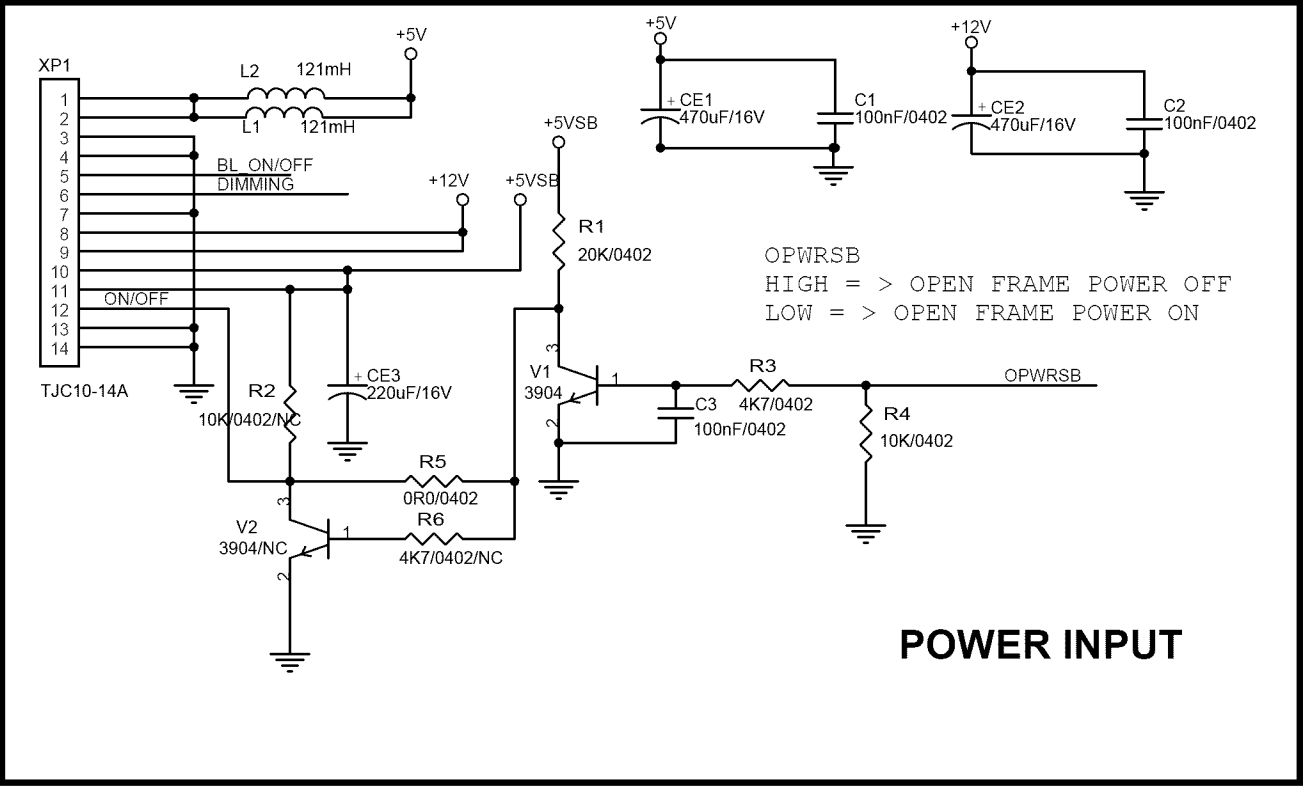
No.	Part No.	Description	Qty.	Code Number	Remark
1	122619	front cover	1	RSAG8.074.453\Z17\ROH	
2	1048975	lens led	1	RSAG8.640.065\ROH	
3	116295	IR Board Unit	1	RSAG2.908.1260-2\ROH	
4	1058744	bracket	2	RSAG8.038.1878\ROH	
5	1061384	LCD Panel	1	M260TWR1\ROH	
6	122630	Power Board unit	1	RSAG2.908.1498-2\ROH	
7	1061396	bracket unit	1	RSAG4.114.126\ROH	
8	1060591	bracket	1	RSAG8.081.577\ROH	
9	1048779	bracket unit	1	RSAG6.150.452\ROH	
10	1052031	back cover	1	RSAG8.074.526\Z1\ROH	
11	121477	Unit	1	RSAG2.908.1553-2\ROH	
12	1050067	bracket	1	RSAG8.038.1304\ROH	
13	1059722	power cord	1	YS-05-E-1\ROH	
14	1050054	cover board	1	RSAG8.632.022\ROH	
15	113354	Key board unit	1	RSAG2.908.1088\ROH	
16	1052188	Key bracket	1	RSAG8.078.481\Z3\ROH	
17	1055277	speaker	2	YDT4211E-5W8R-H\ROH	
18	1036391	cover board	1	RSAG8.634.047\ROH	
19	1049574	base unit	1	RSAG6.121.053\ROH	
20	1059711	back label	1	RSAG8.804.3509\ROH	
21	1060565	side label	1	RSAG8.804.3534\ROH	

01:INDEX/POWER IN
02:DIGITAL/ANALOG POWER
03:MT5380PERIPHERAL
04:DDR1 MEMORY
05:FLASH/JTAG/UART
06:ANALOG PLL/USB2.0/TUNER
07:LINE OUT/HP
08:AMP/MUTE
09:LVDS/HEADPHONE
10:YPBPR INPUT
11:VGA IN/LR
12:HDMI INPUT
13:AV/SV IN FROM AV BOARD
14:IR/KEY

	GPIO Definition
GPIO_0	SYSTEM EEPROM WP PROTECT
GPIO_1	HDMI EDID WP
GPIO_3	USB POWER EN
GPIO_4	NC
GPIO_5	NC
GPIO_6	VGA DDC WP PROTECT
GPIO_7	HDMI HDP
GPIO_8	HDMI POWER SWITCH
GPIO_9	TCOM POWER CONTROL
GPIO_10	USB POWER PROTECT
GPIO_11	NC
GPIO_12	TMDS351 S2
GPIO_13	TMDS351 S1
OPCTRL0	CEC FUNCTION
OPCTRL1	POWER LED
OPCTRL2	BLK ON/OFF
OPCTRL3	SOFT MUTE CONTROL
OPCTRL4	TRAP MODE
OPCTRL5	TRAP MODE
OPWRSB	POWER IN ON/OFF
ADIN0	PWRDET
ADIN1,2	KEY BOAD
ADIN3	TUNER AFT
ADIN4	NC
OIRI	IR

	GPIO Definition
RF_AGC	NC
IF_AGC	IF AGC FOR TUNER

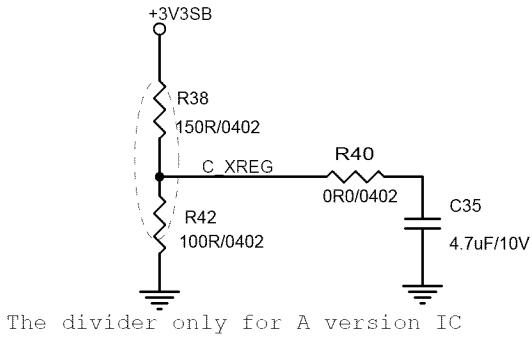
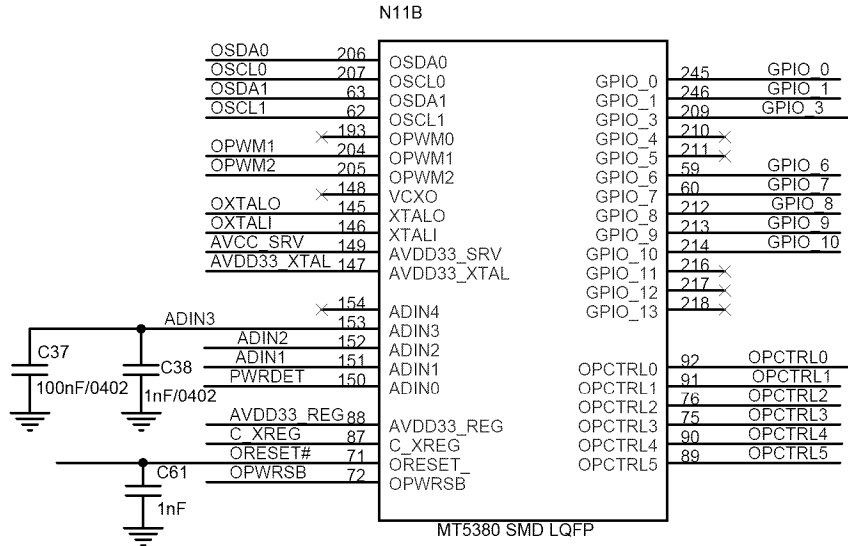
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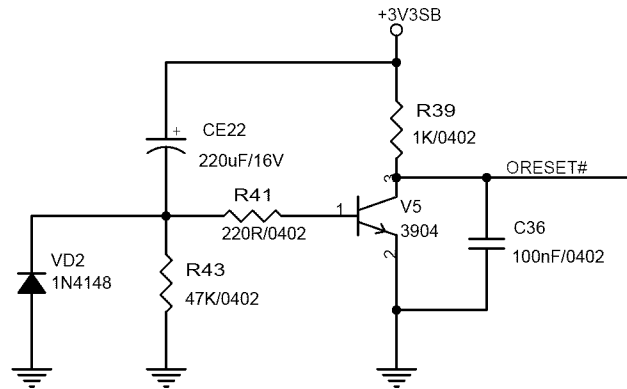
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2,6,7,8,9,11,12,13	+5V	<<>>	+5V
2,3,5,14	+3V3SB	<<>>	+3V3SB
2,9,11,14	+5VSB	<<>>	+5VSB
9	BRI_OUT	<<>>	BRI_OUT
9	BRI_EXT	<<>>	BRI_EXT
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3	OPWM1	<<>>	OPWM1
3	OPCTRL2	<<>>	OPCTRL2

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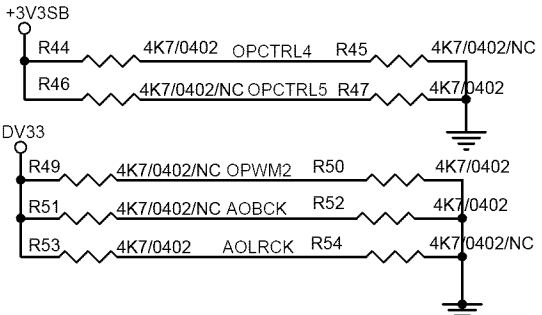
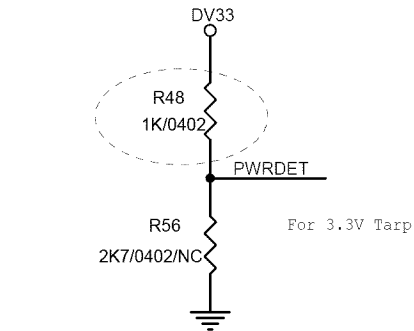
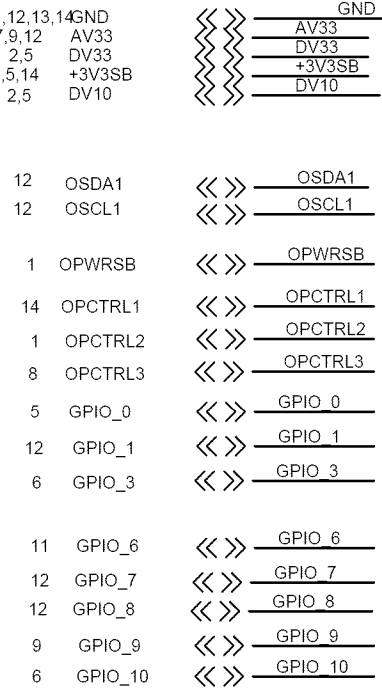
HISENSE SHENZHEN R&D		
Suite 406,langfeng Bldg,#2 Kefa Road Nanshan District,Shenzhen,China Tel:86-755-26532018 Fax:86-755-26532013		
Title INDEX/POWER IN		
Size A3	Document Number <Doc>	Rev 1.1
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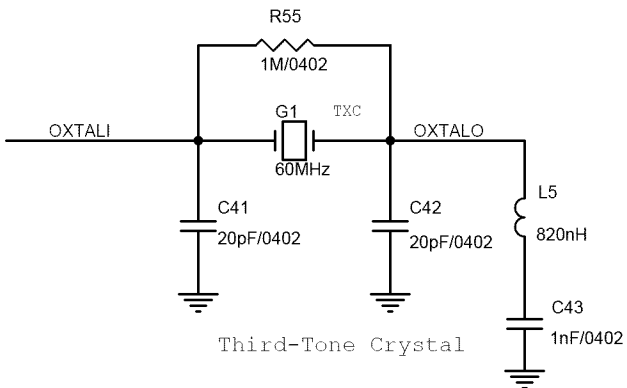


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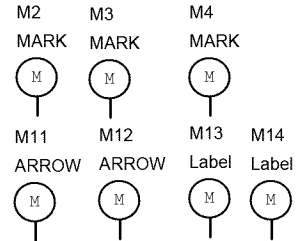
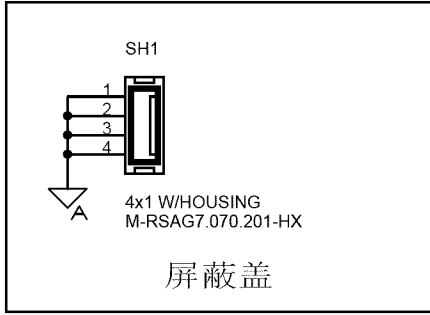
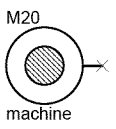
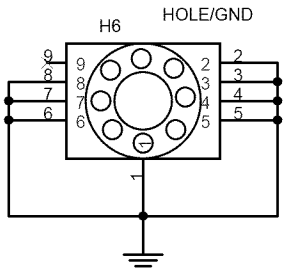
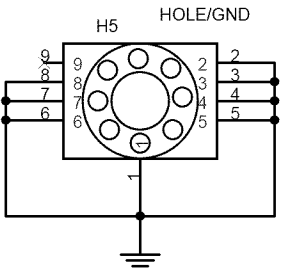
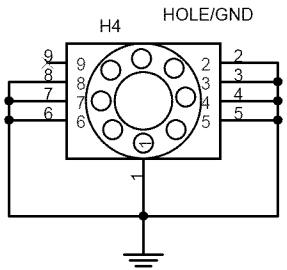
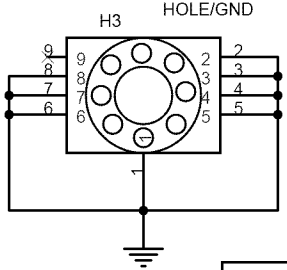
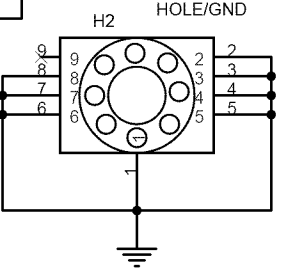
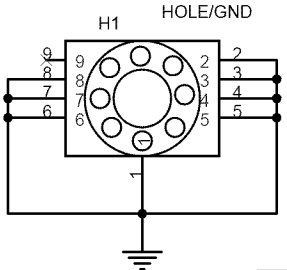
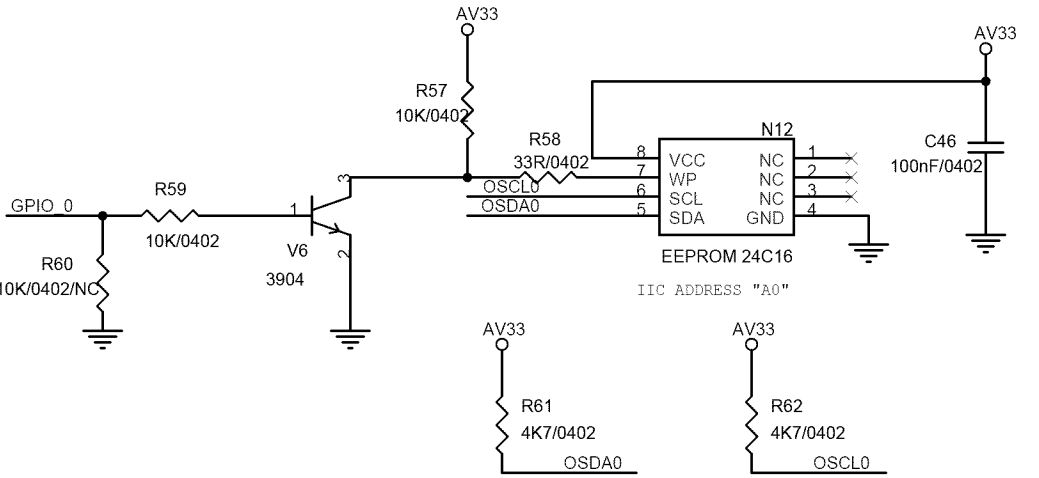
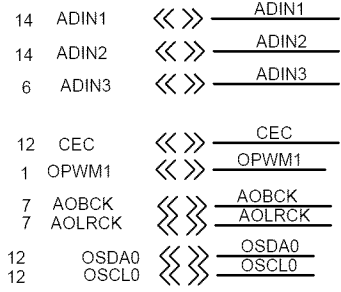
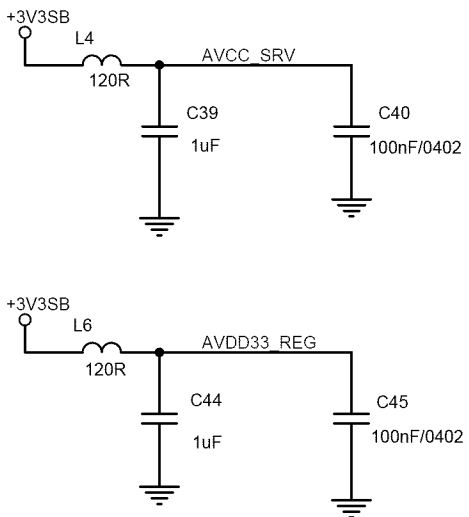


Trap Mode	OPWM2	AOBCK	AOLRCK
Normal mode	0	0	0
ICE mode	0	0	1

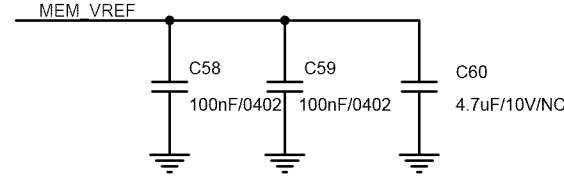
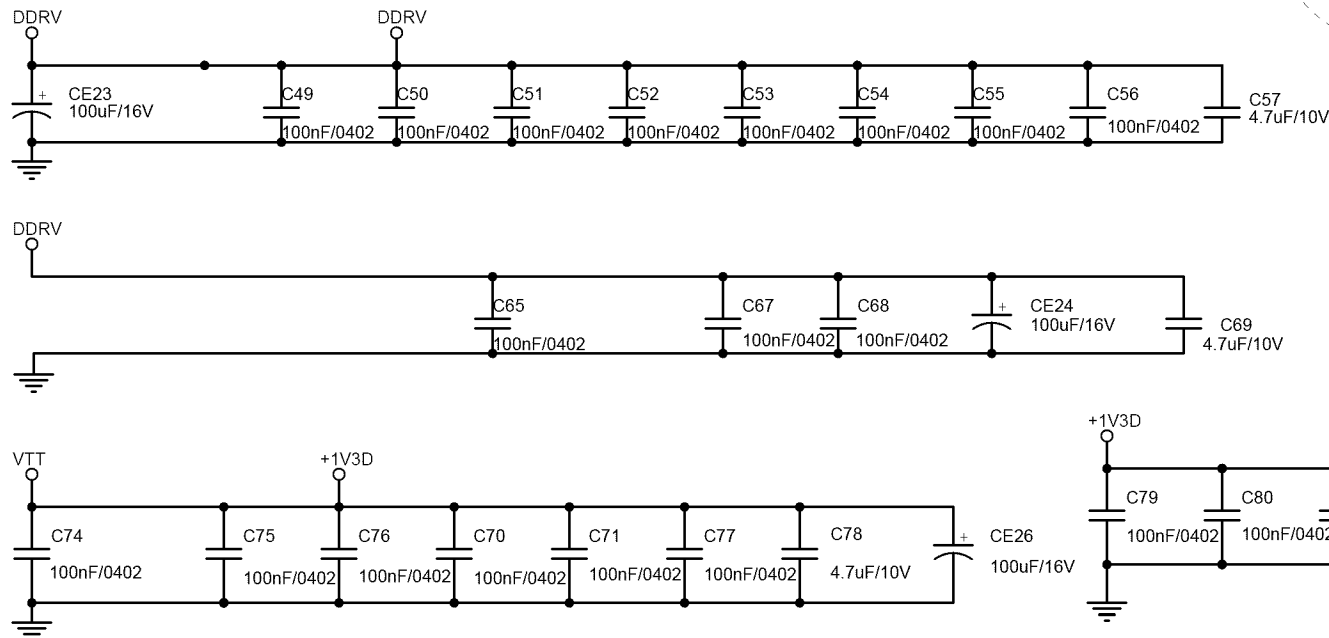
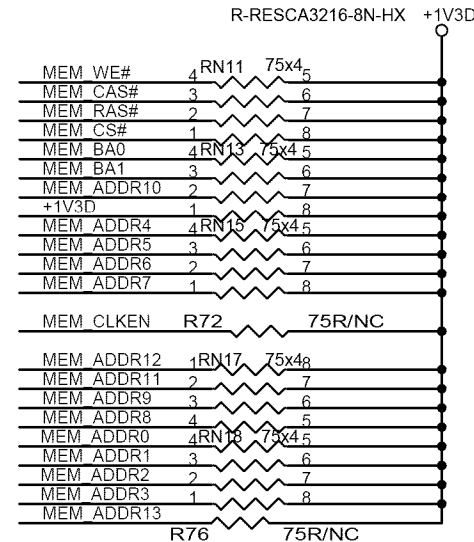
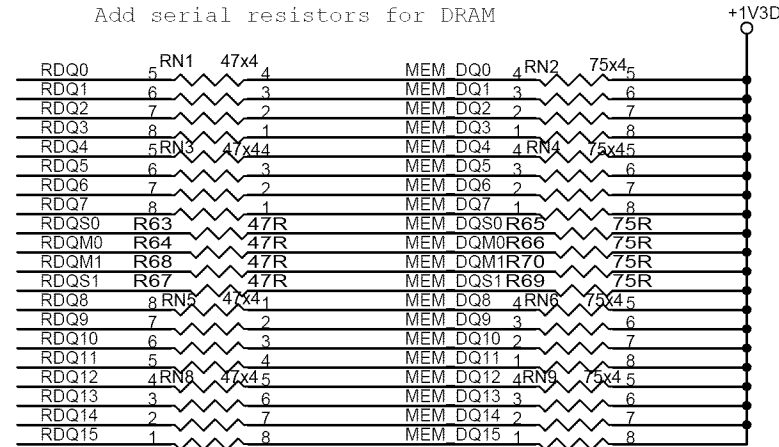
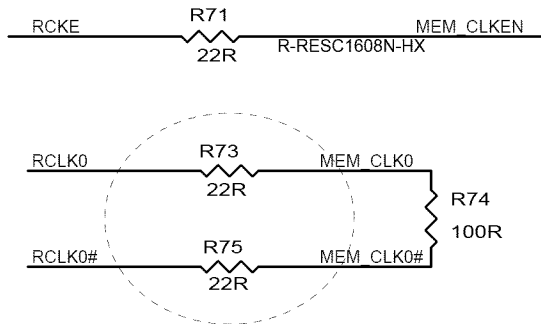
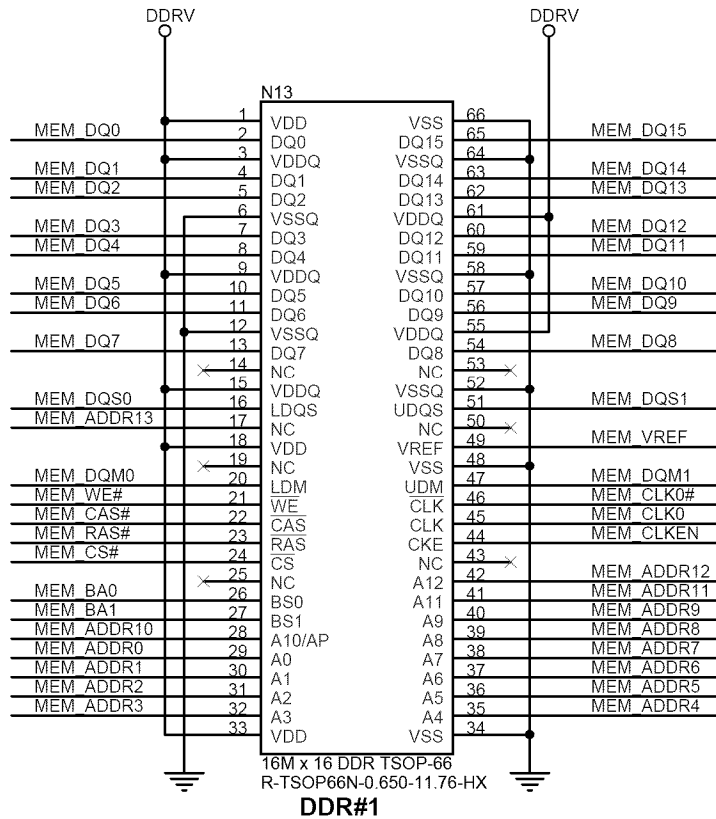
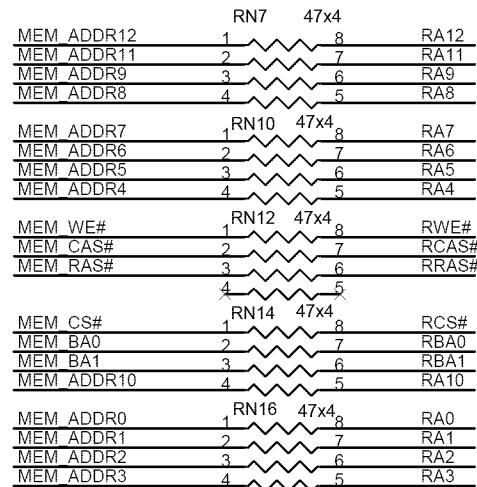
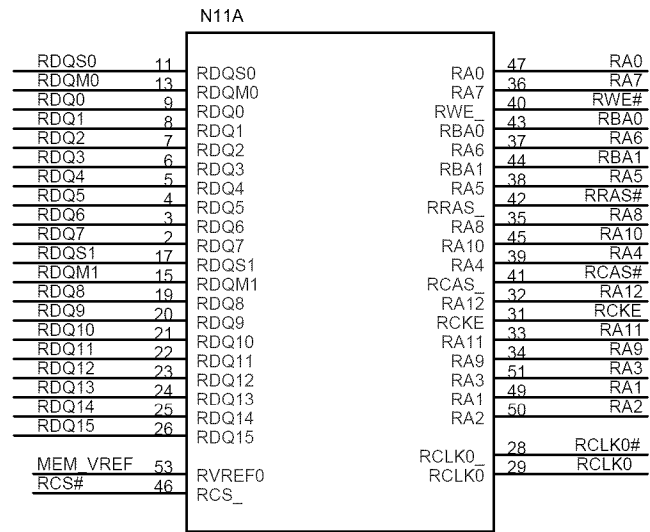
Trap Mode	OPCTRL5	OPCTRL4
Core Reset 1 us	0	1



Third-Tone Crystal



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Title

DDR MEMORY

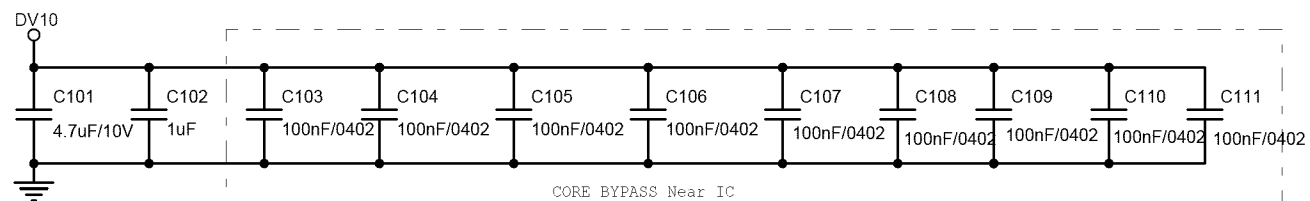
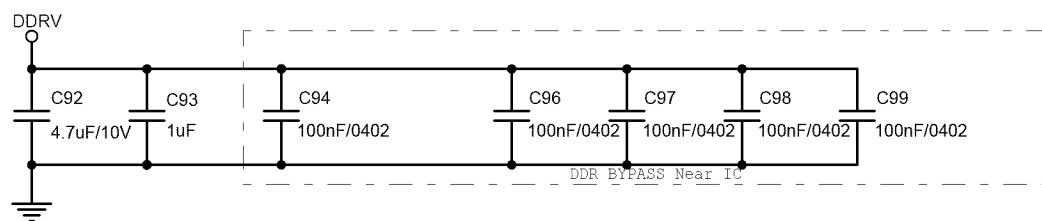
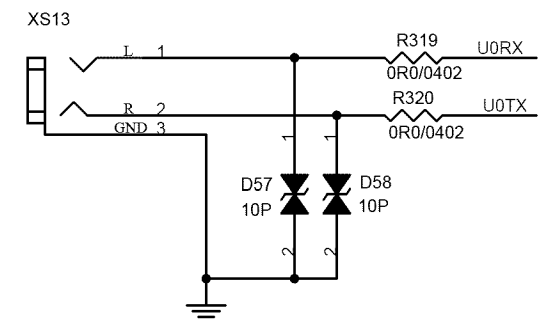
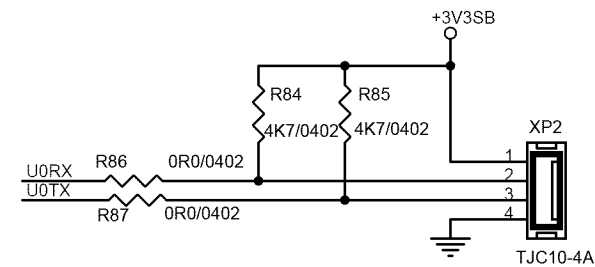
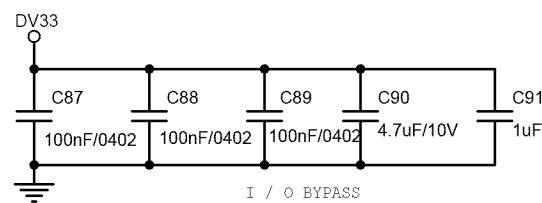
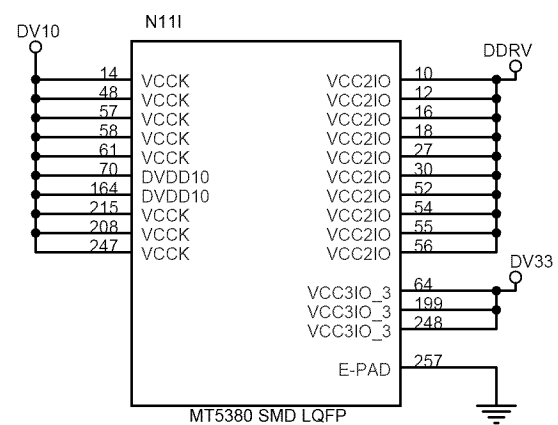
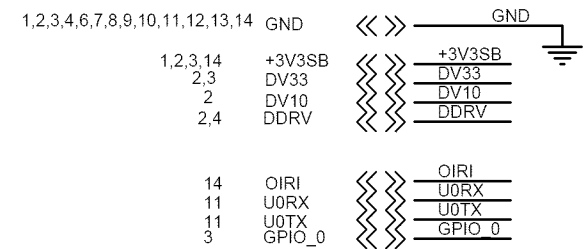
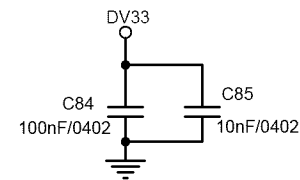
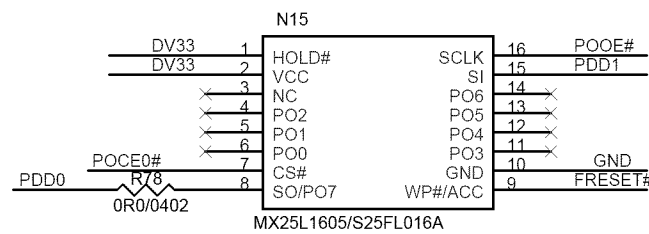
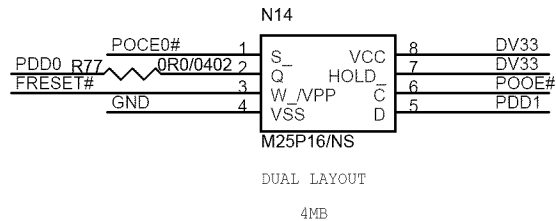
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Title

FLASH/JTAG/UART

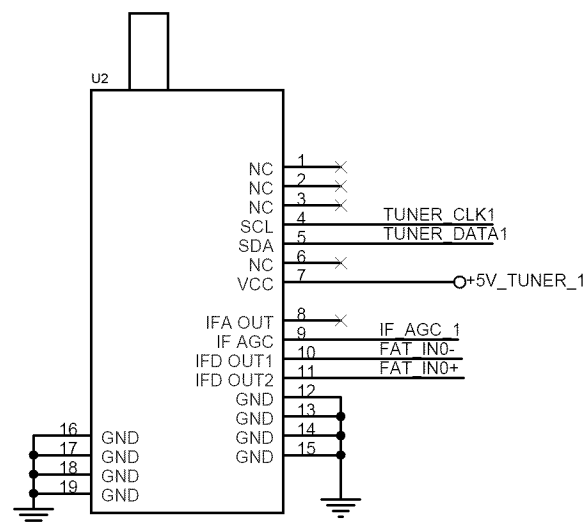
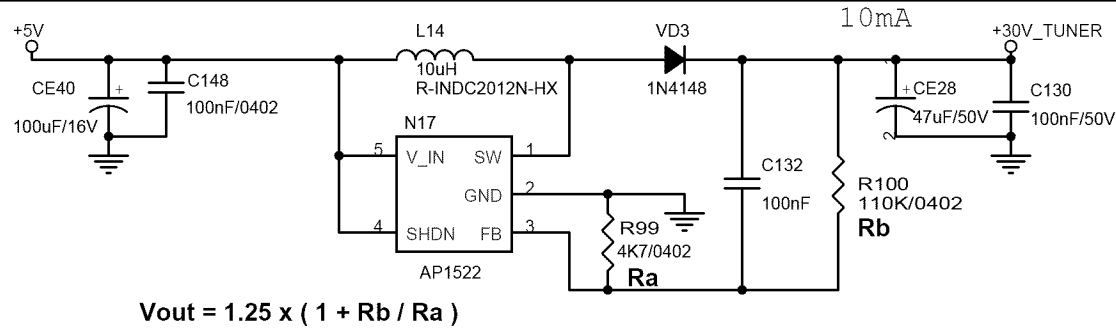
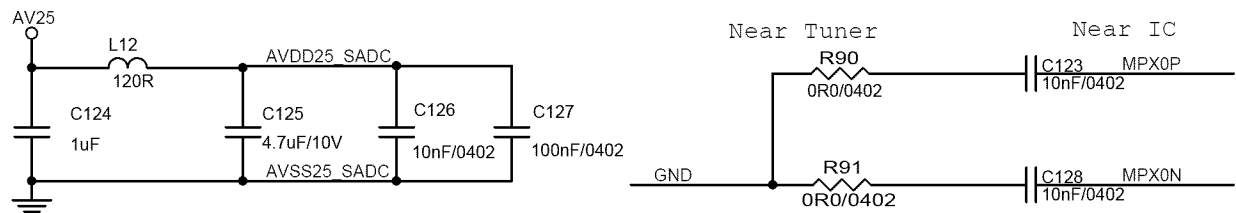
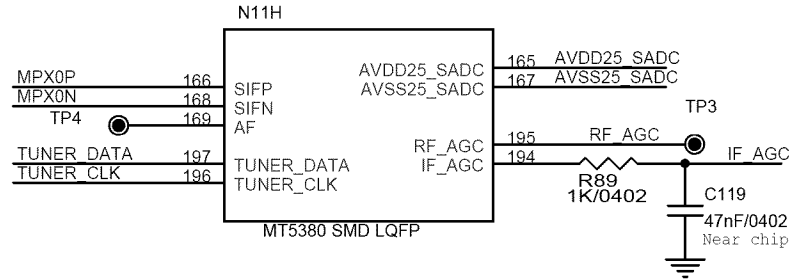
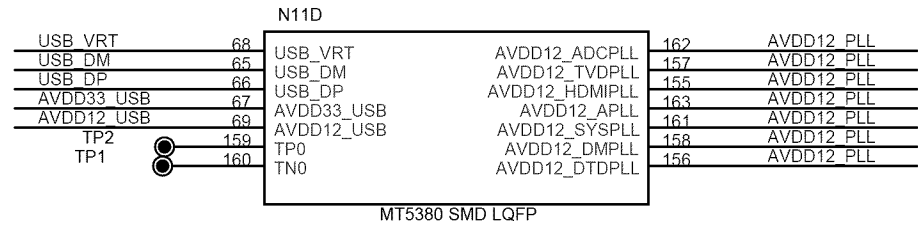
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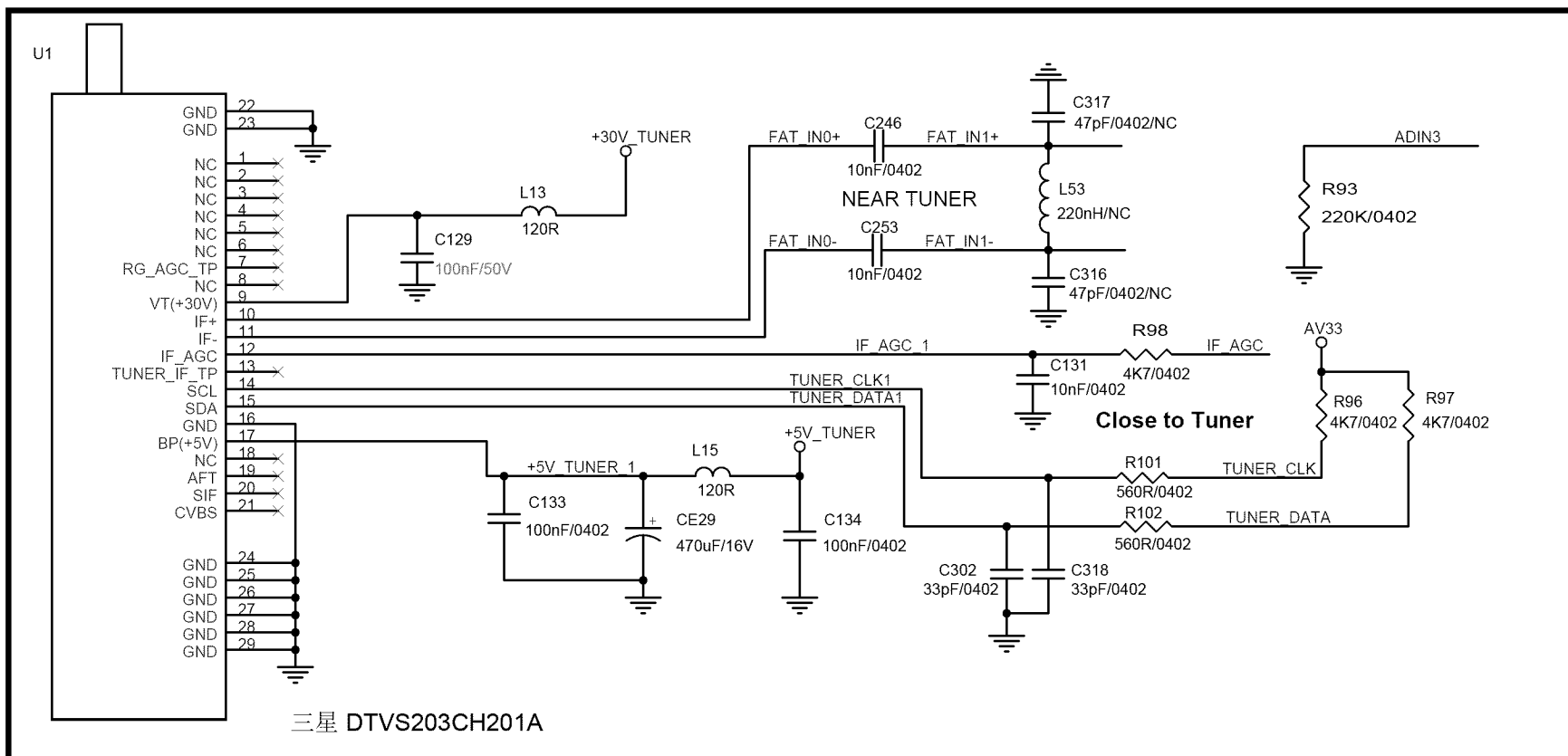
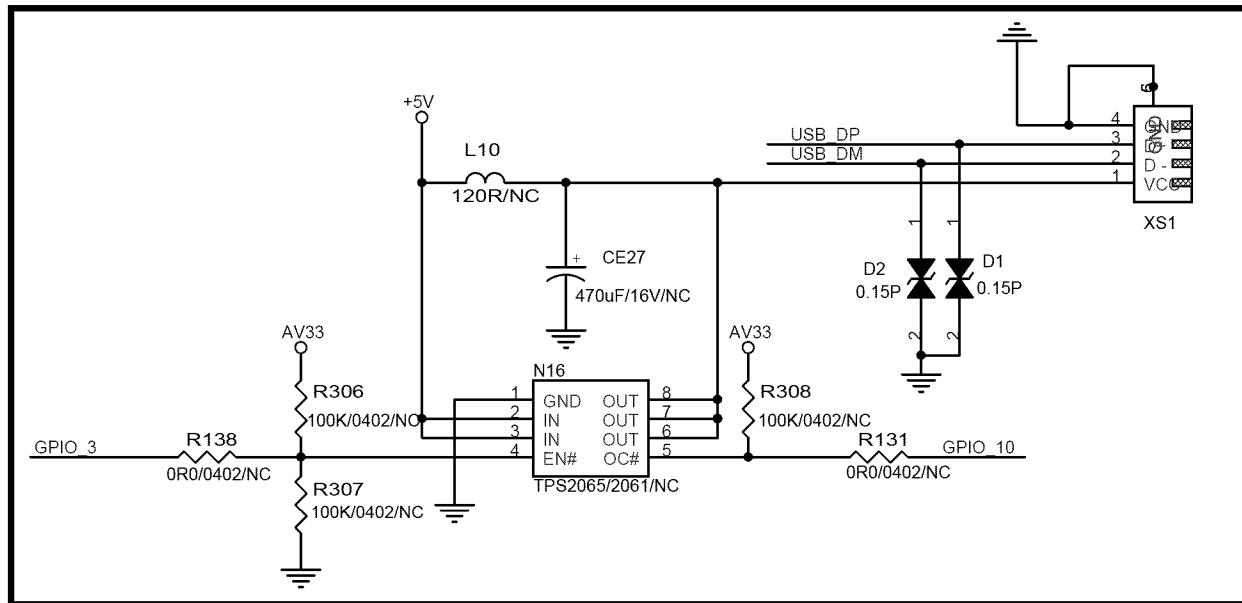
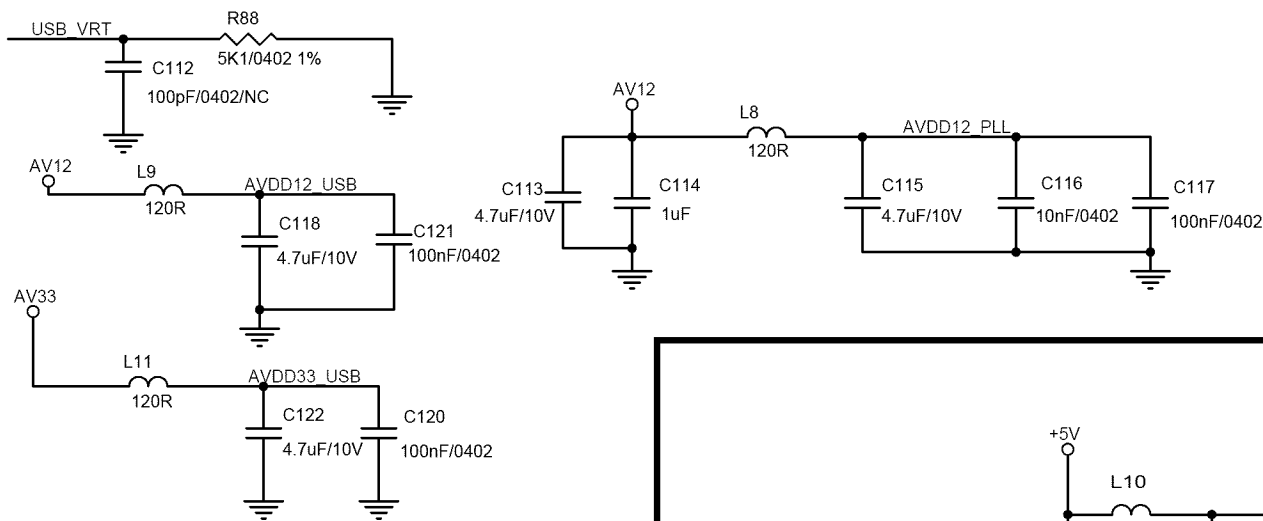
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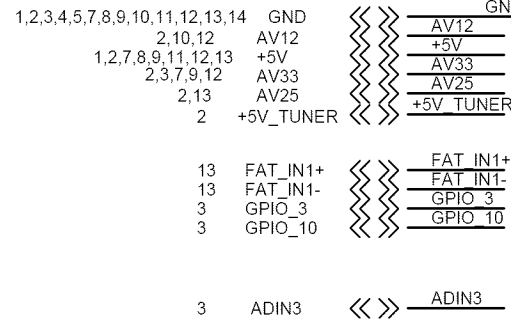
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三星 DTVS203CH201A



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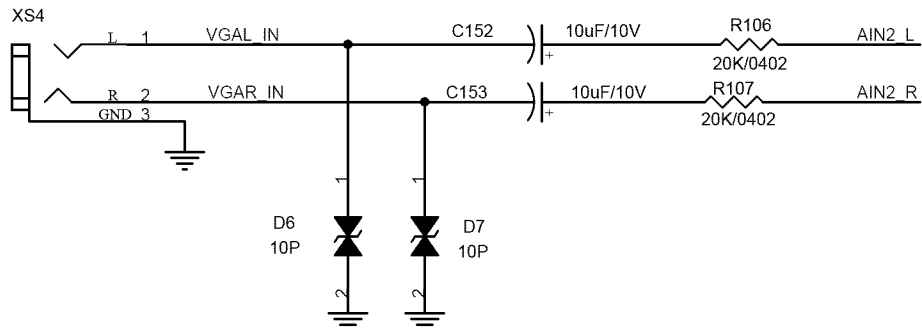
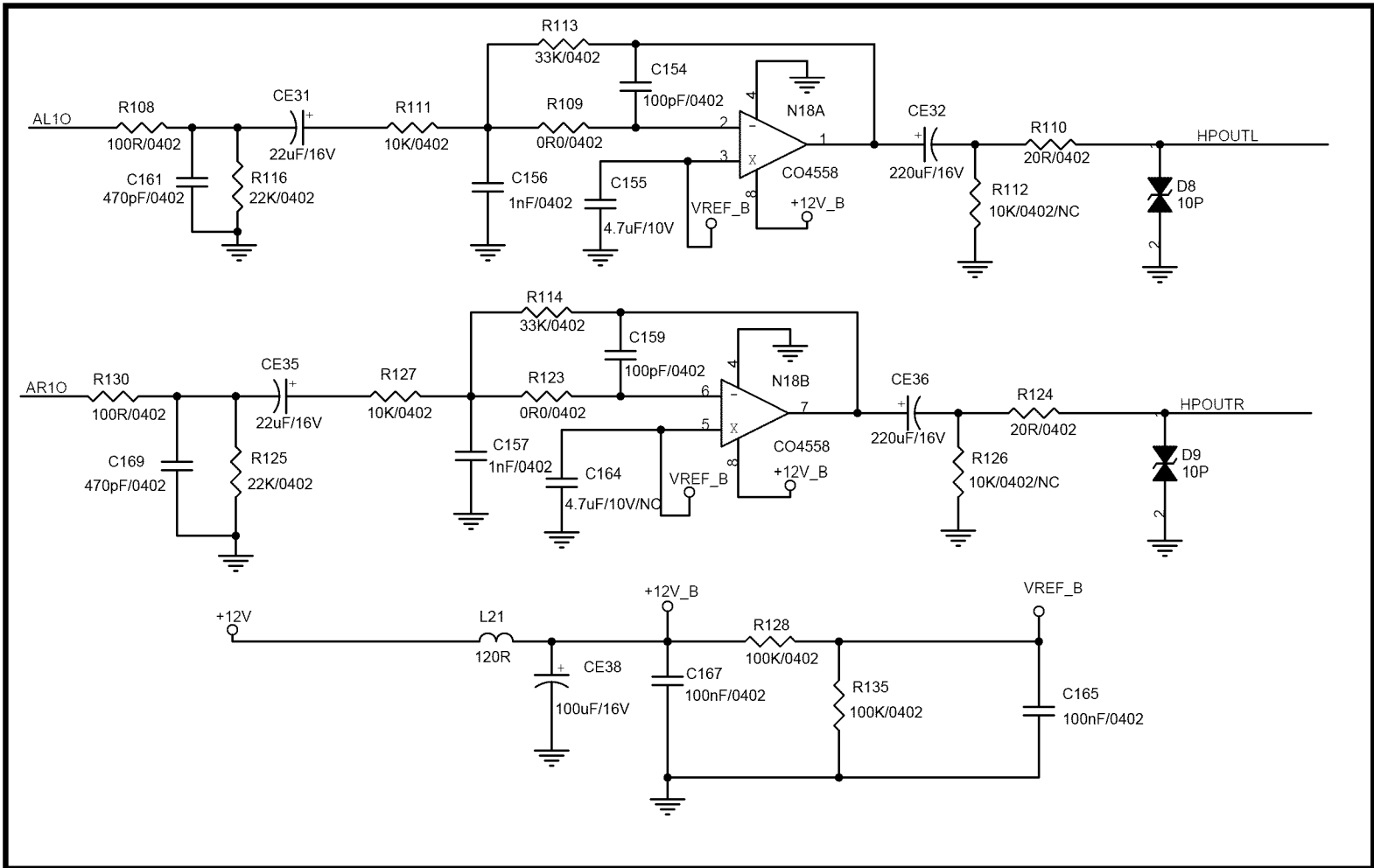
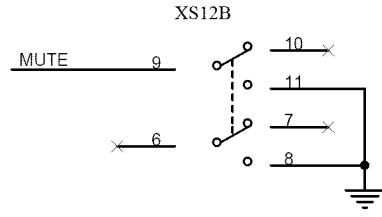
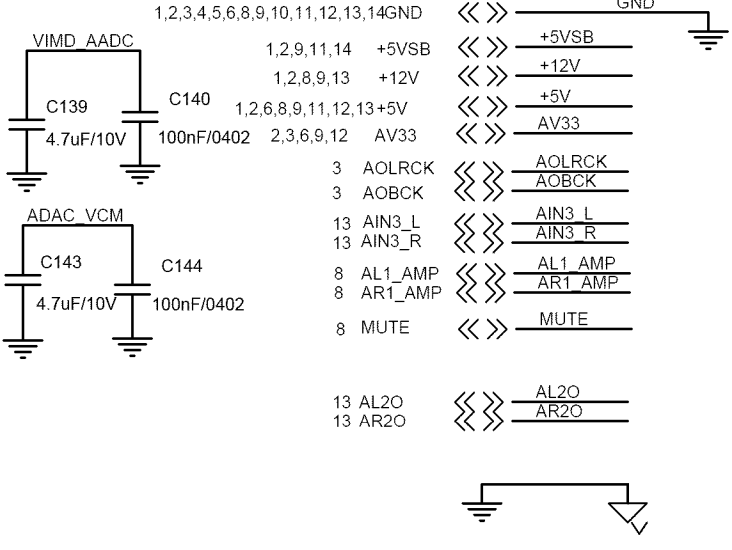
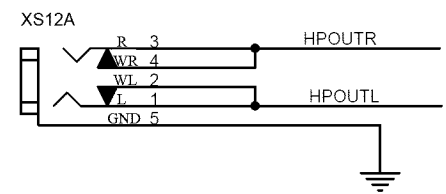
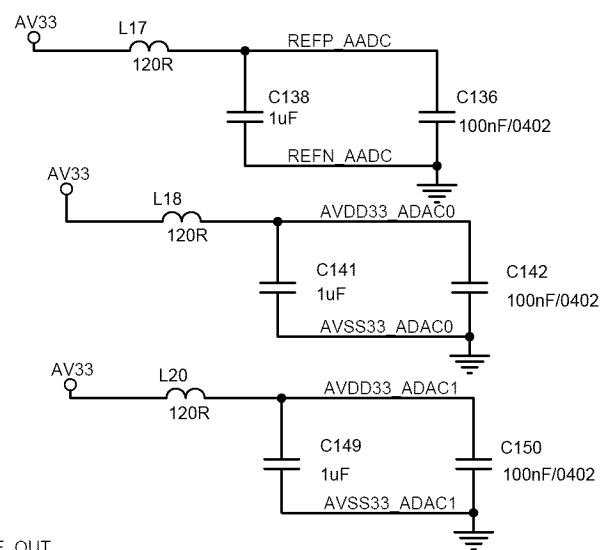
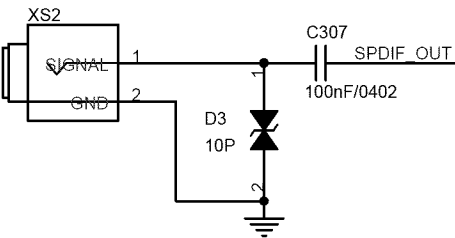
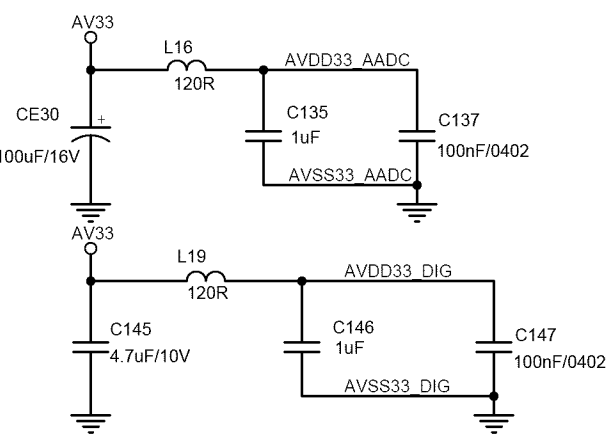
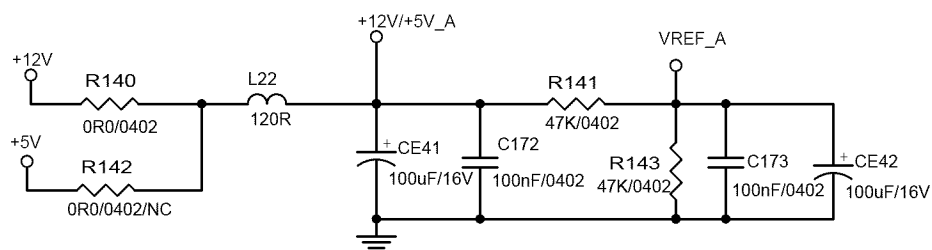
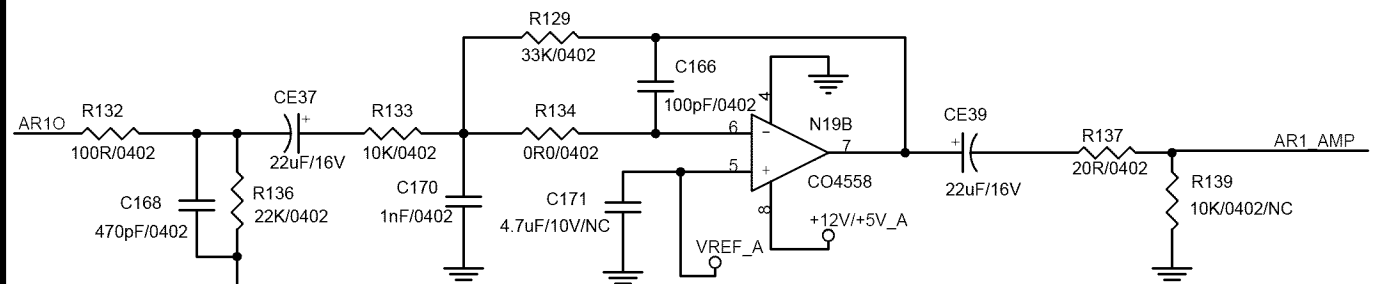
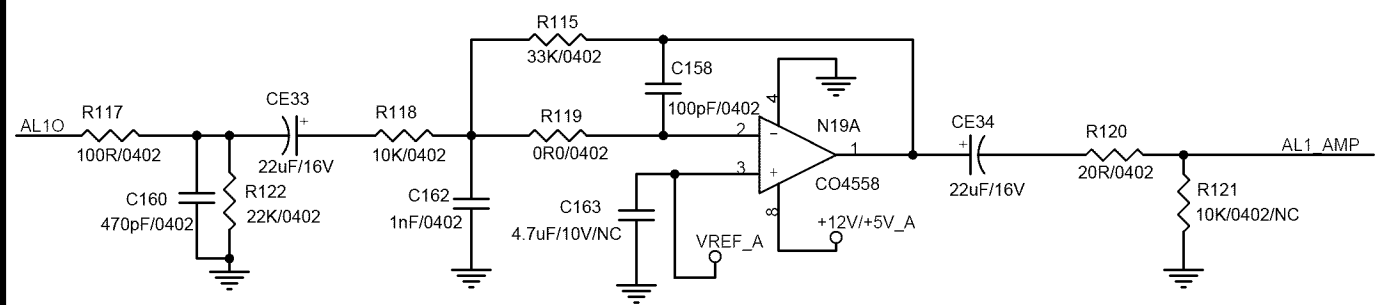
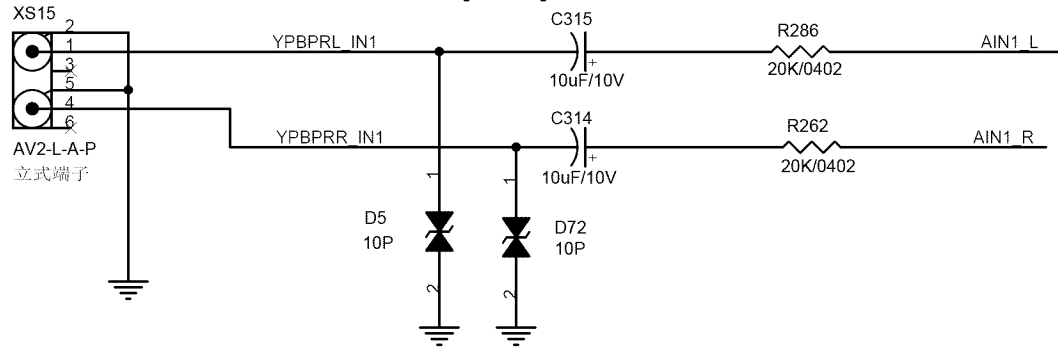
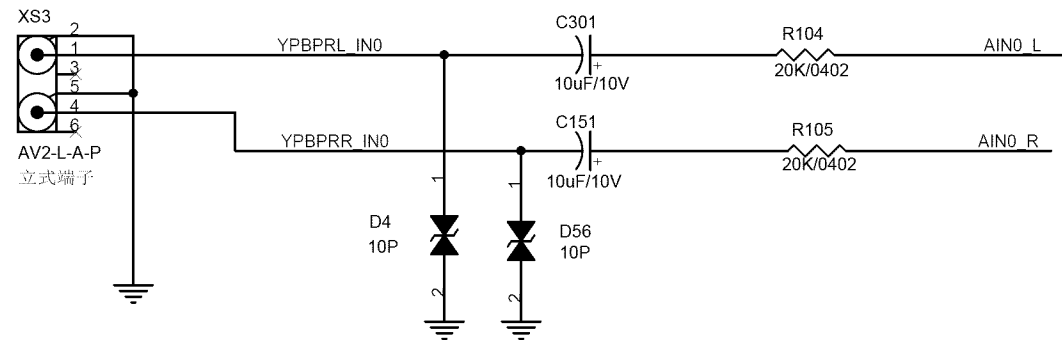
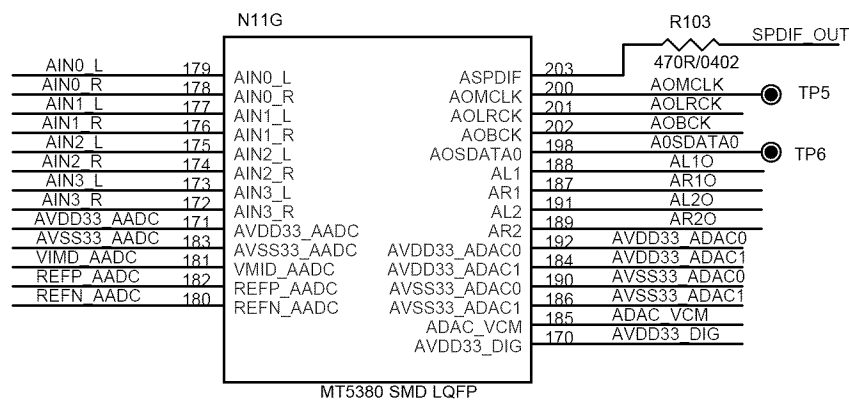
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ANALOG PLL/USB2.0/TUNER

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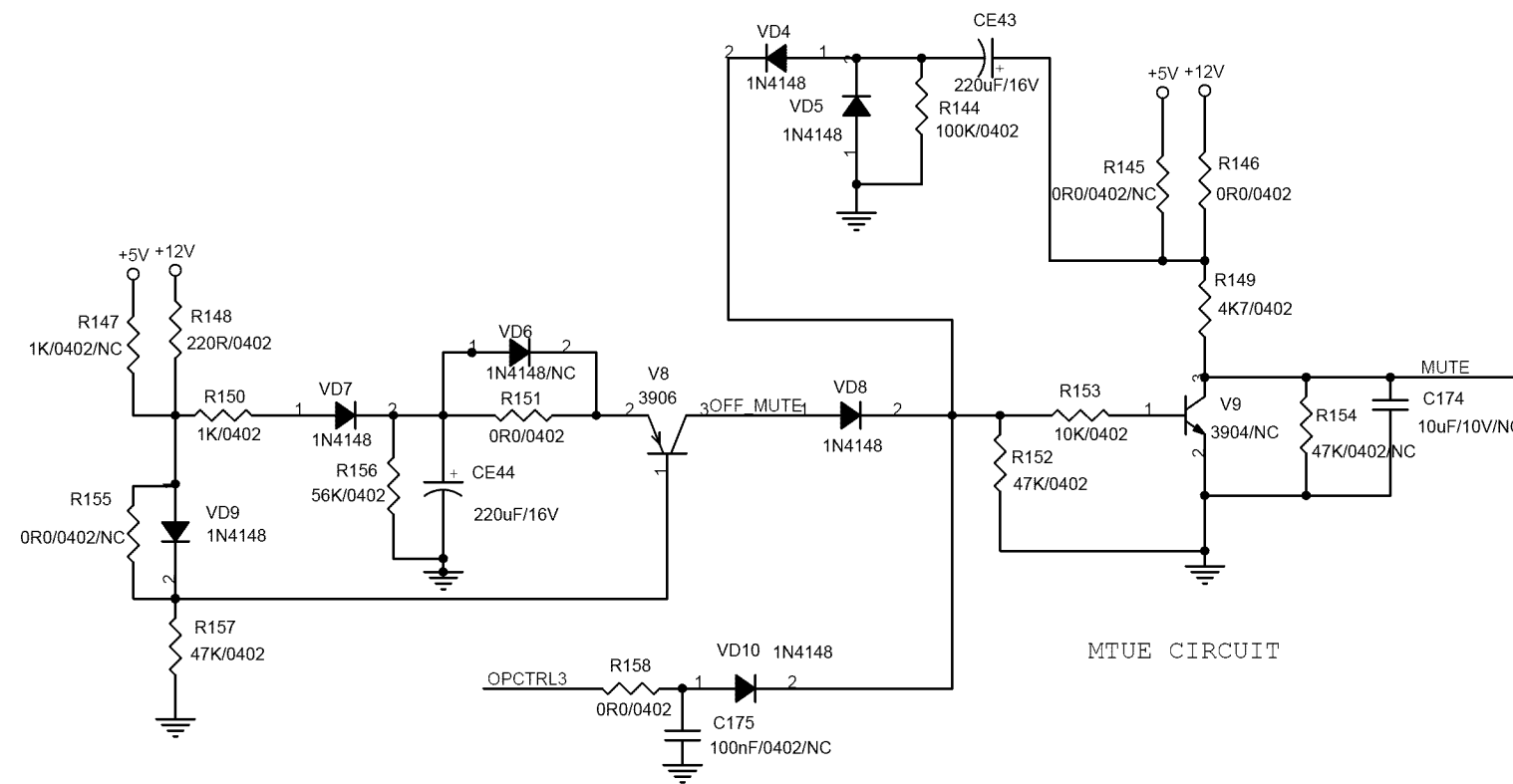
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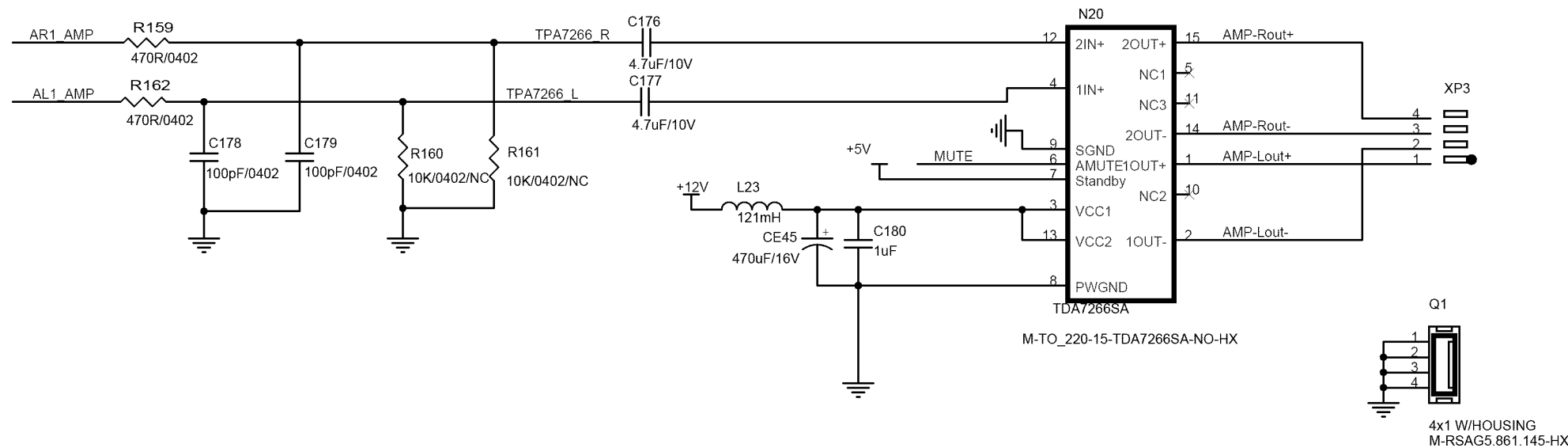
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Size A3 Document Number <Doc> Rev 1.1

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1,2,7,9,13	+12V	<< >>	+12V
14	AL1_AMP	<< >>	AL1_AMP
14	AR1_AMP	<< >>	AR1_AMP
9	MUTE	<< >>	MUTE
3	OPCTRL3	<< >>	OPCTRL3



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Title

AMP/MUTE

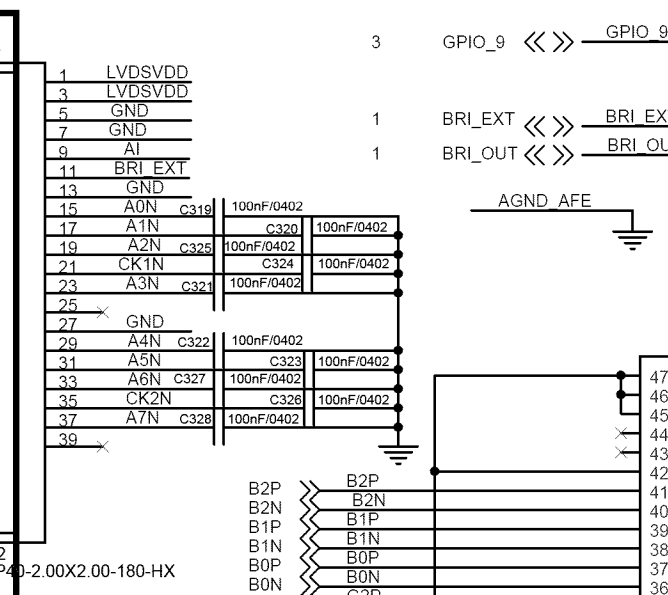
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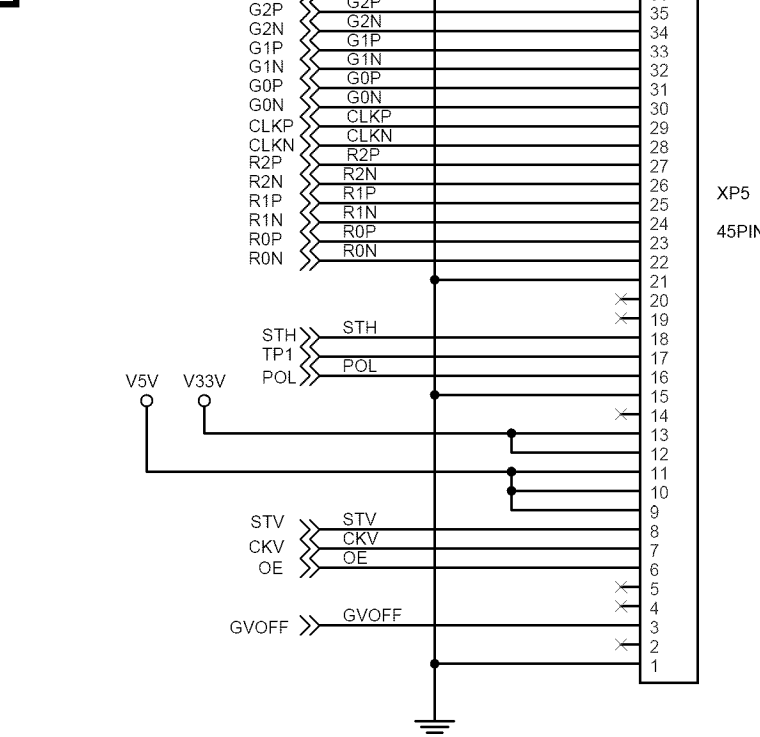
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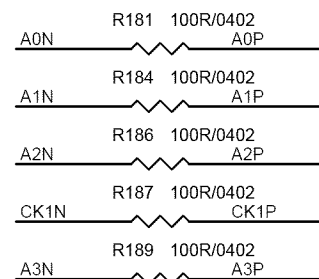
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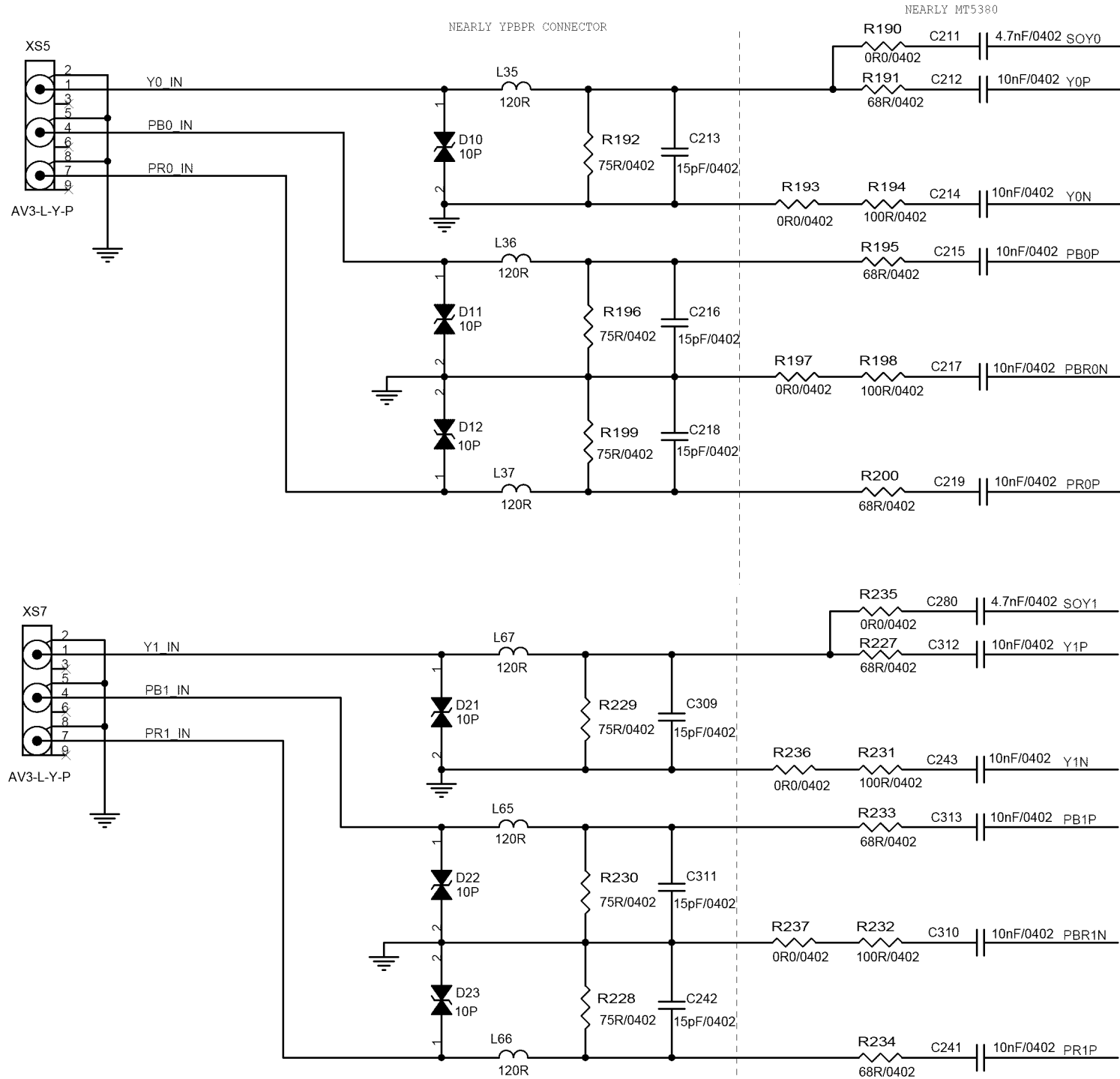
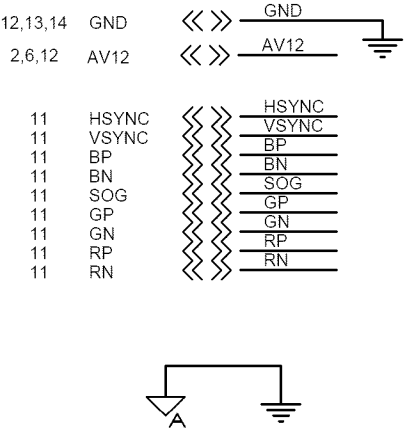
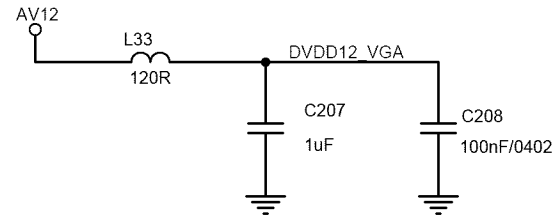
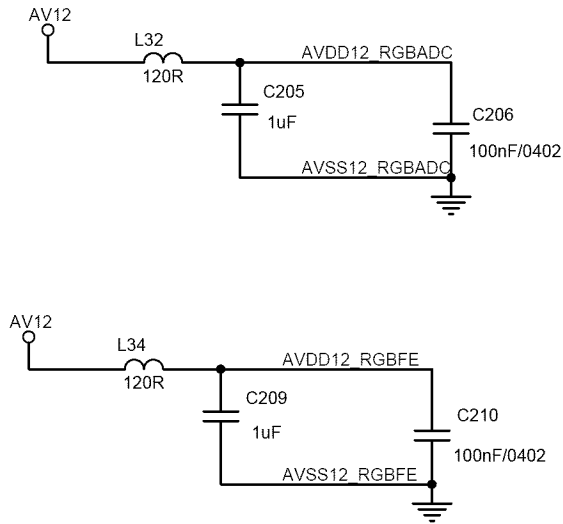
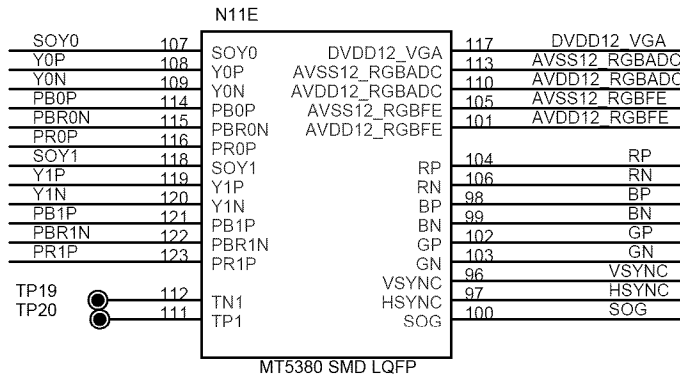


[T-CON]



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Title LVDS OUT / HEADPHONE			
Size A3	Document Number <Doc>		Rev 1.1
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Title

YPBPR INPUT

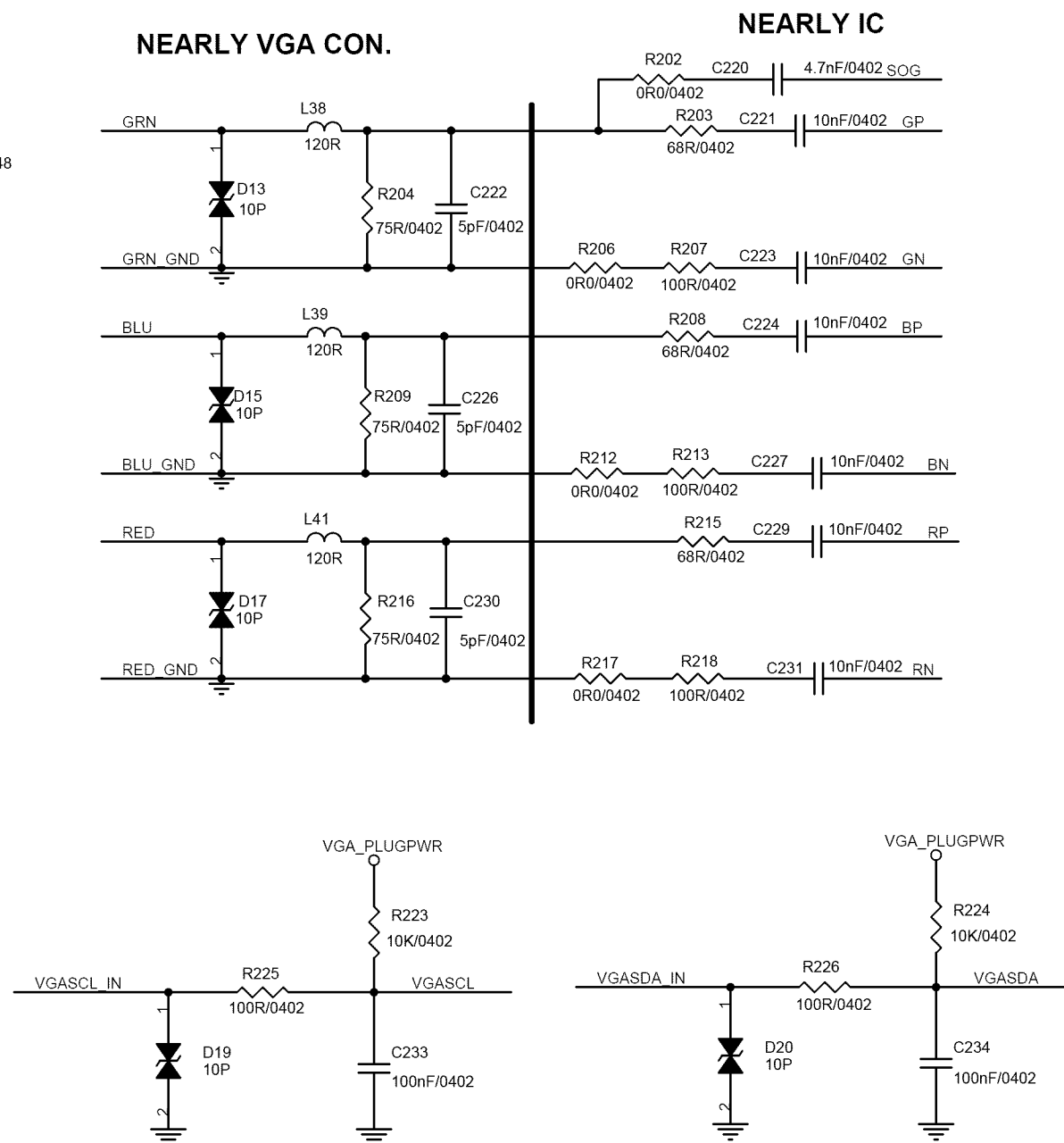
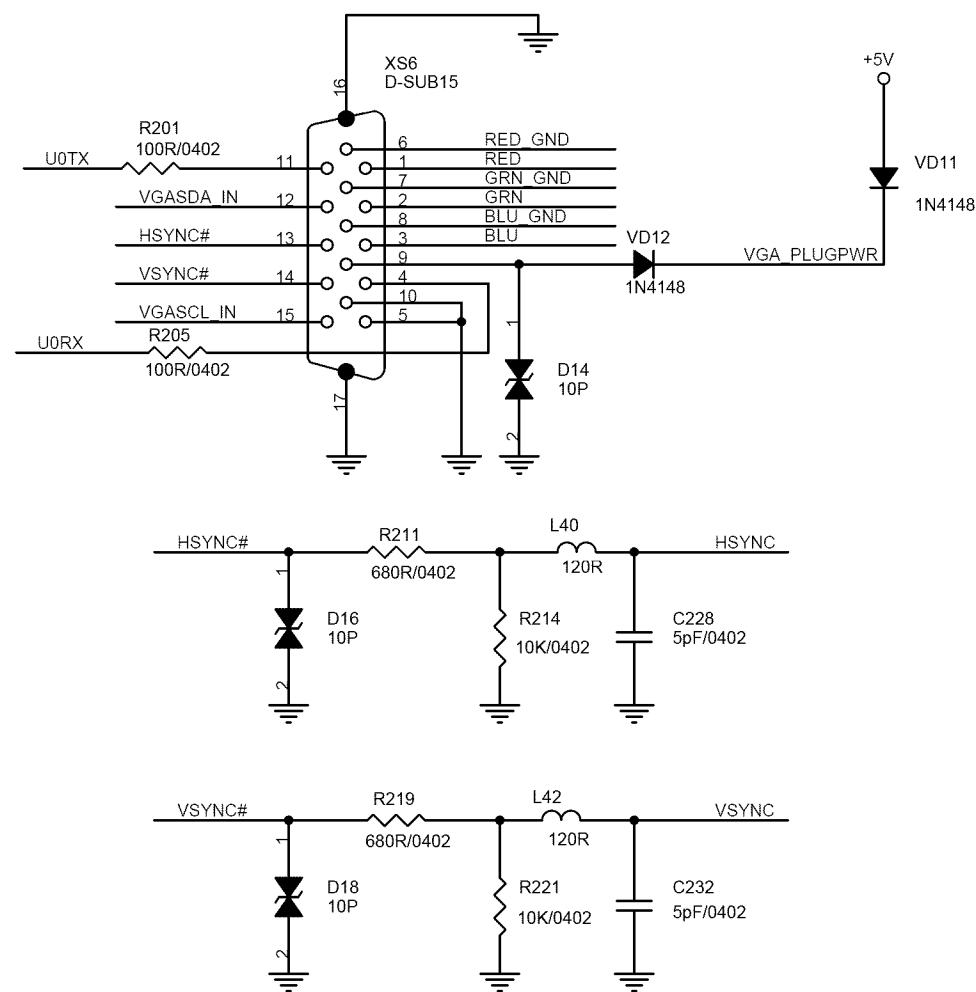
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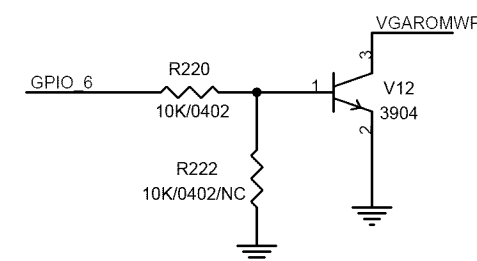
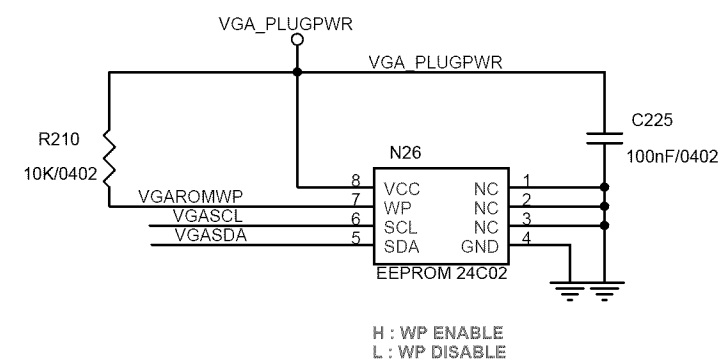
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10	HSYNC	<<>>	HSYNC
10	SOG	<<>>	SOG
10	GP	<<>>	GP
10	GN	<<>>	GN
10	BP	<<>>	BP
10	BN	<<>>	BN
10	RP	<<>>	RP
10	RN	<<>>	RN
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5	U0RX	<<>>	U0RX
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Title

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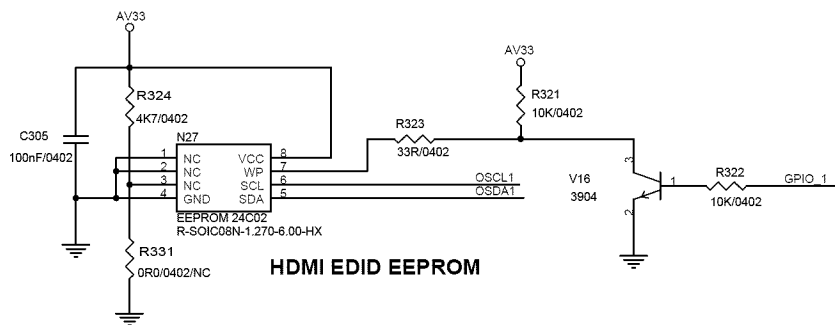
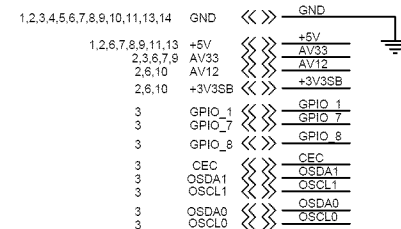
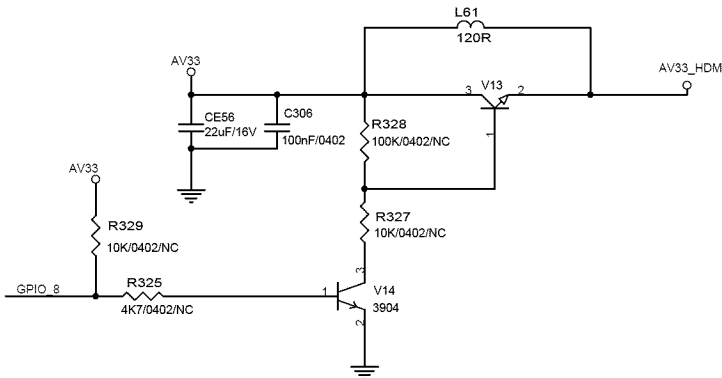
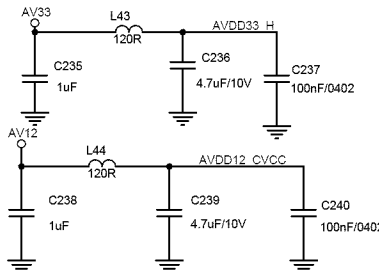
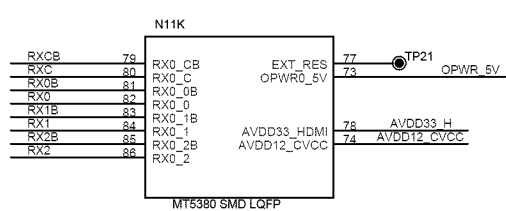
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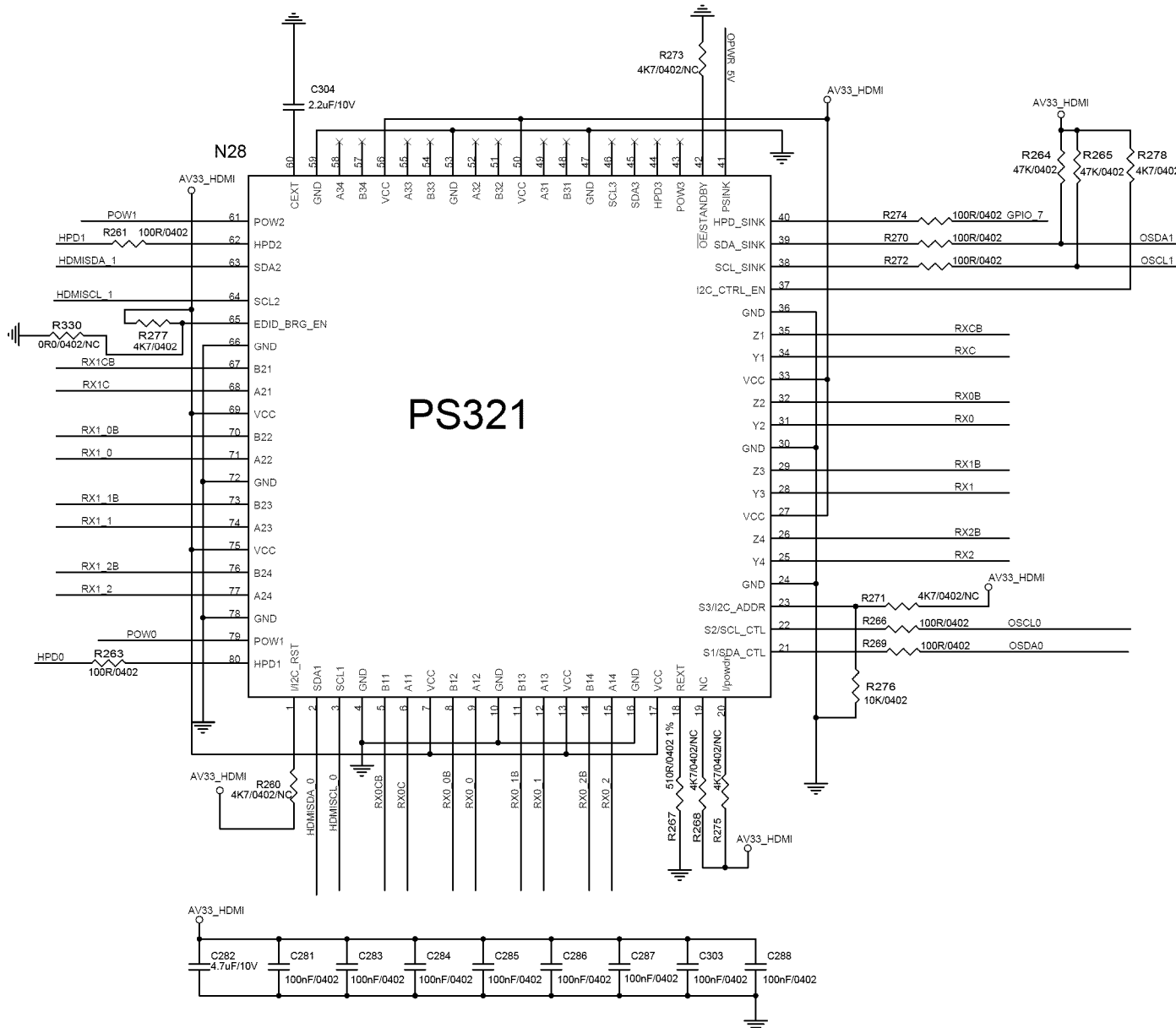
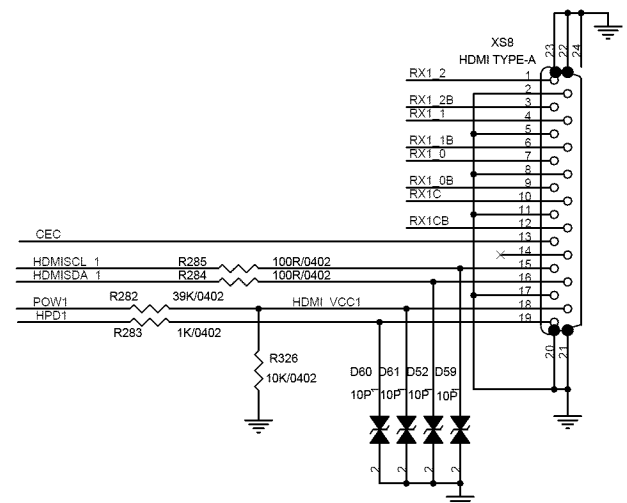
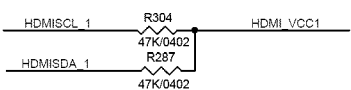
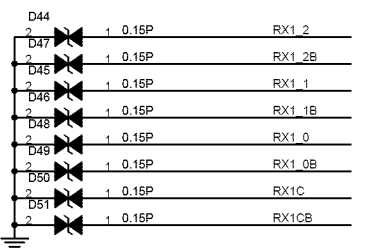
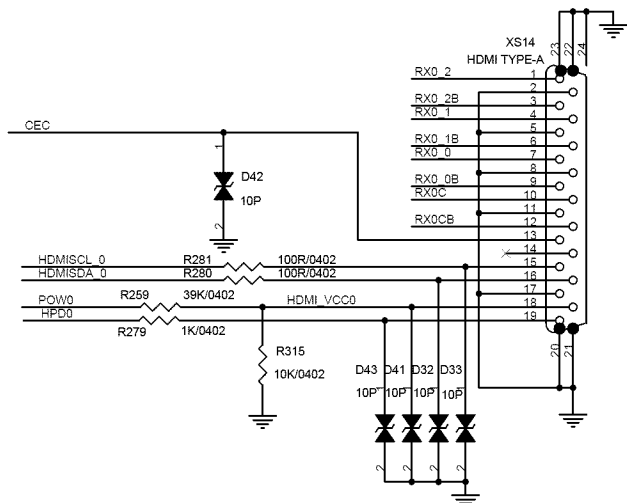
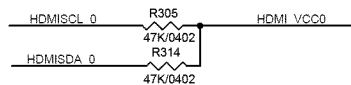
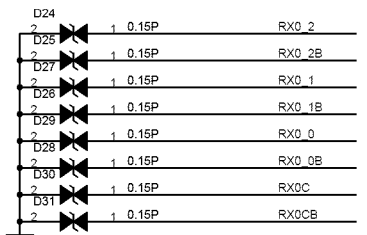
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Hisense Electric Co.,LTD

HISENSE SHENZHEN R&D

Suite 406, Jangfeng Bldg.#2 Kefa Road Nanshan District, Shenzhen, China
Tel:86-755-26532018
Fax:86-755-26532013

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